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ABSTRACT

This guide is a developmental document that contains working definitions of terms and commentaries on them. Intended for those working or interested in vocational education and training (VET) at any level, the guide introduces the concepts and terminology associated with work-based learning in VET, offers assistance to readers trying to understand and use some of the new terms and language, and provides a source of background information on origins of some terms. Closely related terms are clustered around three themes that are used as section headings: (1) aims of VET; (2) methods and approaches in new VET; and (3) accreditation--approaches to assessment and certification, including standards and their use. Terms are listed alphabetically. For each term, there is a definition and a commentary. Terms discussed elsewhere in the document are underlined, and their page numbers listed in the alphabetical index at the end of the document. Where the definition is taken from earlier or current literature on VET, the source is cited in the reference list at the back of the document. Appendixes include a list of 139 references, a complete listing of the 30 readings recommended at the end of entries, abbreviations, and alphabetical index of terms. (YLB)

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September 1989 edition

A GUIDE TO

WORK BASED *learning* TERMS

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Definitions and commentary on terms for work based learning in vocational education and training

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WORK BASED LEARNING PROJECT

The Further Education Staff College

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WORK BASED LEARNING PROJECT TEAM (1986-1988)

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GUIDE TO WORK BASED LEARNING TERMS

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INTRODUCTION

This *Guide to Work Based Learning Terms* is for everyone working in, or interested in, vocational education and training (VET) at any level. The *Guide* is a developmental document containing working definitions of terms and commentaries rather than simply fixed definitions. It relates to a new and emerging model of vocational education and training and so some of the terms used may differ from their traditional use. Readers requiring further information on the initial development of the new model are referred to Levy, 1987c in Appendix 1.

The *Guide* has a number of functions:

- It provides a reference document which introduces the concepts and terminology associated with work based learning in vocational education and training (VET).
- It offers assistance to readers trying to understand and utilise, in workplace, classroom and workshop, some of the *new* terms and language being used in VET, and so can be used to promote discussion and clarification of this language in staff training and development activities.
- It provides a source of background information on the origins of some of the new VET terms.

The *Guide* also directs the interested reader to further literature on the subject from the European Social Fund (ESF)-funded Core Skills Project and the subsequent Manpower Services Commission (MSC) and Training Agency (TA)-Work Based Learning Projects (see Appendix 3 for a description of the work of the Work Based Learning Projects from 1986 - 1990).

What is work based learning?

It has long been recognised that learning takes place naturally in workplaces but often in an unstructured way. *'Work Based Learning'* offers a new curriculum model for the delivery of VET, which includes workplace learning, and shows how the latter can be made more effective. The model was initially developed in the course of the Core Skills Project in YTS, but its relevance extends beyond youth training to the whole post-16 vocational education and training field, namely to the whole work force of 20 million or so employed workers.

The definition of work based learning

Work based learning is defined as:

- Linking learning to the work role

and, in addition, having three inter-related components, each of which provides an essential contribution to the learning:

(i) Structuring learning in the workplace

(ii) Providing appropriate on-job training/learning opportunities

(iii) Identifying and providing relevant off-job learning opportunities

The purpose of work based learning

The *purpose* of work based learning, with its main characteristic of *linking learning to the work role*, is to:

- Assist workers and employers in responding to labour markets in which change is endemic
- Provide a basis for the provision of continuous learning opportunities which such change implies and which was highlighted by the New Training Initiative (NTI).

Guide structure

In the *Guide* closely related terms are clustered around three themes which are used as section headings:

Section 1	Aims of vocational education and training (VET)
Section 2	Methods and approaches in new VET including work based learning
Section 3	Accreditation: approaches to assessment and certification, including standards and their use

- For each term there is a definition and a commentary.
- Terms discussed elsewhere in the document are underlined, and their page numbers listed in the alphabetical index at the end of the document.
- Where the definition is taken from earlier or current literature on VET, the source is cited in the reference list at the back of the document. Where there is no source cited, the definition is one constructed by the Work Based Learning Project team, and, as in most definitions in this guide, account has been taken of earlier work in the area.
- Readers will note that the entries for both definition and commentary for different terms vary considerably in length. This depends on the importance of each term to national development work. Where national development work is still evolving, multiple definitions are sometimes included to offer a view of the alternative perspectives which exist. Where the Work Based Learning Project is developing particular tools and strategies, such as Individual Development Plans, Work Based Projects, Assessment Maps, Strategies for Structuring Learning in the Workplace, Use of the Core Skills Framework to encourage skill transfer, entries may also be extended in order to reflect this work.

Further reading from the Core Skills Project and Work Based Learning Project team members is given, where appropriate, at the end of each commentary. All such further reading is listed in Appendix 2.

Further information about the documents referred to and others available from the Work Based Learning Projects is contained in the Work Based Learning Publications and Papers List, free from the Librarian, The Further Education Staff College (FESC), Coombe Lodge, Blagdon, Bristol BS18 6RG, Tel.: 0761 62503.

SECTION 1 Aims of vocational education and training (VET)

Changes in the economy, the problem of unemployment, particularly youth unemployment, and complaints of skill shortages and falling standards have all been issues at the heart of recent changes in vocational education and training (VET) provision. The Great Debate in the 1970s on the role of education and training was prominent among the factors which gave rise in 1981 to the New Training Initiative (NTI) (MSC, 1981a; MSC 1981b). This identified new aims for vocational education and training which included:

- A more versatile, adaptable, technically competent, highly motivated, and mobile workforce
- A better start to working life for all young people
- Increased opportunities for access to training and retraining throughout adult life

The changes in VET instigated by NTI include new ways of defining and measuring occupational competence. Through this and in other ways NTI has been influencing the aims and objectives found in education and training programmes and in employers' staff training and development processes.

The terms discussed in this section are characteristic of the new aims of VET. They are:

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ACCESS

Definition

Within the VET system 'access' refers to the opportunities the system offers for entry to education and training. Granting access represents a judgement that the individual has the potential to succeed in and benefit from the provision. That judgement may itself entail formal recognition of competence already attained (see accreditation).

Commentary

Vocational education and training should be accessible to as broad a range of people as possible and give access to further education and training as well as employment. This assertion, as well as being ethically justifiable, makes economic sense. A system with limited access results in wasted human potential. New approaches to VET accreditation proposed by the National Council for Vocational Qualifications (NCVQ) state that there should be no barriers based on the learner's age, specified period of learning, or attendance at a specific institution etc. In addition, NCVQ statements (NCVQ, 1988e) clearly emphasise the importance of equal opportunities in terms of access to NVQs. 'The term "equal opportunities" is taken to apply to situations arising where people have been disadvantaged because of issues of race, age, gender, religion, disability or learning difficulty.' (NCVQ, 1988f)

Increasing access to VET for a broader range of people of working age, and changing recruitment sources and approaches to recruitment, will be essential because of demographic change and the falling number of young people in the labour market. A recent research report (NEDO/Training Commission, 1988) provides a comprehensive discussion of policy issues and the challenges employers will have to face because of the decline in the number of 16-24 year olds by one fifth (1.2 million) between 1987 and 1995. The report suggests a number of strategies that employers could pursue to overcome this deficit in a traditional recruitment area. Of particular importance is the need for recruiters/selectors to modify their current recruitment and selection criteria.

Where access to VET and jobs has traditionally been determined by a system of educational, vocational or professional qualifications, it has often been to the exclusion of other information indicative of an individual's potential and/or attainment. Access can be broadened if there is recognition of this wider range of information indicating existing competence or potential. Such recognition has tended to be hampered by the high status traditionally accorded to academic qualifications and the low status given to the practical demonstration of competence or skill, whether in the workplace, the home or elsewhere. A notable exception is the field of performing arts.

The process known as assessment of prior learning, or accreditation of prior achievement, is being developed in an attempt to overcome such obstacles to access.

A number of institutions now run access courses designed to offer alternative entry routes to higher education, generally for mature learners who do not have the formal qualifications required for entry. The growing number of credit transfer arrangements also enhance access to, and mobility within, the VET system.

The issue of access as one of the central policy concerns for higher education has been well examined in the report of a Training Agency-funded research project (Fulton and Ellwood, 1989). This project mapped the present pattern of admissions policies and practices over a range of institutions, examined the rationale for these, and assessed the potential for an increase in the participation rate. The report offers twenty six recommendations for consideration by funding bodies, institutions and departments.

ADAPTABILITY/ VERSATILITY

Definition
Adaptability is the ability to handle and respond to change. Versatility is the corresponding ability to handle variety. The terms are used particularly to refer to changes and variety within jobs and to the changes which result for a worker when changing jobs.

Commentary
Adaptability and versatility are sometimes used as though they refer to the same quality in the individual. They are in fact quite distinct, though they are both associated with mobility in the local and national labour markets.

The recognition of the need for adaptability comes from the recent impact on the labour market of changes in technology and work organisation. This suggests that changing from one job to another and coping with changes which take place within jobs will be features of future employment. The ability to cope with change must therefore be encouraged in VET programmes of learning. Promoting adaptability requires VET providers to do more than just recognise and meet current and anticipated future training needs of worker-learners. It requires VET providers also to help worker-learners themselves to deal with changes in work processes and systems which cannot be anticipated in detail.

Versatility has to do with a worker switching easily from one type of activity to another. VET providers need to recognise that this involves the worker-learner being competent in the different activities involved, and possessing strategies to cope with change. It can often include the ability to be able to deal with the greater range of activities and the complexity of organisation which may be involved in the job.

Increases in adaptability and versatility require workers-learners to exercise a greater degree of autonomy of learning and in the work role. Adaptability and versatility depend on skill transfer, process skills and personal effectiveness. Mobility in the labour market also depends on the recognition, particularly by employers, of skills which are common to many jobs (see, for example, core skills and generic skills). Mobility also depends on credit transfer arrangements in education/training provision.

AUTONOMY OF LEARNING

Definition

Autonomy of learning refers to the degree to which learners have control over their own learning by, for example, choosing their styles or modes of learning and perhaps the sequence and context of learning.

Commentary

Autonomy of learning is promoted by encouraging the learner to be an active participant in the learning process rather than a passive recipient. The more learners are encouraged to exercise autonomy, the more readily they can organise their own learning as needed in the future. The autonomous learner still benefits from the support, resources and opportunities for reflection afforded by a structured programme of learning. However, learners who have become more autonomous may well be better equipped to take advantage of opportunities for learning which occur outside a formal programme in the day-to-day development of competence in a job. (See also experiential learning and participative learning.)

BASIC SKILLS

Definition

Basic skills encompass '...knowledge of how to find a job and an understanding of matters relating to employment in general...'. (Jameson-Wray et al, 1980)

'...those skills basic to a learner's progression into higher level education or training scheme; his or her individual synthesis of knowledge, skills and experience and attitude...'. (FEU, 1982)

Commentary
There is no single definition in common usage of the term basic skills as used in VET. The issues associated with defining basic skills are two-fold. First, the fact that the word skill itself encompasses a variety of meanings, and in everyday usage includes not just practical activities, but application of knowledge and, frequently, attitudes, and sometimes life skills. Second, that the term 'basic skills' often has *purpose* associated with it which is related to a particular target group. For example 'basic skills' in a particular occupational area is often associated with basic training or foundation training, meaning those skills required before entering employment. These can be for first entry workers at craft or graduate level. Basic skills is also used to refer to the skills needed by people who may be barely literate or numerate. It may also be used to describe skills needed by individuals re-entering a wider society after some time within a constrained system. (see social and life skills) In using the term 'basic skills' it is advisable to be specific about their purpose and the target group they are intended to address (see diagnostic assessment). In current VET literature there seems to be some confusion between terms like core competences, basic skills, foundation skills.

BROAD-BASED TRAINING

Definition
Broad-based training is training designed for learners with a variety of occupational destinations, for learners whose occupational destination is initially unknown or for learners with known destinations who may subsequently have to change their occupation.

It can take the form of limited learning in a variety of areas (of skills or knowledge, for example) or more substantial learning in a small number of areas, but applicable in many different ways or circumstances.

Commentary
Broad-based training programmes have to ensure that the learning achieved is relevant to a wide range of occupational activities. The work based learning model encourages the development of broad-based training in which versatility, adaptability and transferable skills (see skill transfer) are developed simultaneously with occupationally specific skills.

General education has traditionally tried to satisfy broad aims by emphasising knowledge of principles rather than skill acquisition, and theory rather than practice. This assumes that what is learnt can automatically be transferred from the general level to a wide variety of practical applications.

In vocational training, by contrast, broad-based training has traditionally tended to cover a wide range of occupationally-specific or job-specific skills at a low level. This has been done to enable learners with a range of possible occupational destinations to follow the same initial programme, and in the belief that the introduction to a range of skills will promote later adaptability.

CAPABILITY

Definition

Capability is the exercising of creative skills and the skills of undertaking and completing tasks, of coping with everyday life and of cooperating with others.

'Capability means different things to different people. Academics naturally tend to view it in terms of mastery of a body of knowledge and the accompanying ability to engage in research. Employers look for personal and social skills as well as the intellectual; indeed, the mastery of a body of knowledge may be of no interest whatever. Because higher education is for most students a preparation for life outside academe, compromises must be struck between these different views of capability. Higher education is multi-purpose. It is certainly not just preparation for employment.' (Booth, 1989)

Commentary

Capability is associated with the idea of a *wide range* of skills and potentially wide *applicability*. There has been confusion as to whether capability is learned or innate. In its most common usage in VET, however, it is something which can be learned.

The leading promoter of capability is the Royal Society of Arts (RSA) with its campaign, 'Education for Capability'. RSA sees capability as a goal for education as a whole, not merely vocational education. The campaign's criticism of traditional models of education and training states that 'young people in secondary or higher education increasingly specialise and do so too often in ways which mean that they are taught to practise only the skills of scholarship and science.' (Burgess, 1986)

**COMPETENCE/
OCCUPATIONAL
COMPETENCE**

Definition

Definitions of the term include:

'The individual capacity to undertake activities requiring independent planning, implementation and self monitoring.' (German Engineering Employers Federation, 1985)

'The ability to use knowledge, product and process skills and as a result, act effectively to achieve a purpose.' (Hayes, 1985)

'The possession and development of sufficient skills, knowledge, appropriate attitudes and experience for successful performance in life roles.' (FEU, 1984)

'The application of skills, knowledge and attitudes to tasks or combination of tasks to standards under operational conditions.' (Prescott, 1985 - personal communication)

'Occupational competence is the ability to perform activities in the jobs within an occupation, to the standards expected in employment. The concept also embodies the ability to transfer skills and knowledge to new situations within the occupational area and beyond to related occupations. Such flexibility often involves a higher level of mastery of skill and understanding than is common among even experienced employees.' (MSC, 1985)

'The ability to perform the activities within an occupation. It encompasses a wide concept which embodies the ability to transfer skills and knowledge to new situations within the occupational area. It encompasses organisation and planning of work, innovation and coping with non-routine activities. It includes those qualities of personal effectiveness that are required in the workplace to deal with co-workers, managers and customers.' (MSC, 1988a)

'The ability to perform in work roles or jobs to the standard required in employment.' (NCVQ, 1989a)

'Occupational competence is more than being able to carry out a limited range of tasks...it involves being capable of performing to the standards expected in employment within broadly defined *work roles* - not just specific jobs and tasks. Occupational competence involves the technical skills which industry needs, plus a number of key abilities which are valued by employers, and which support the *flexibility* and *adaptability* which we need in our economy. These abilities include:

- being able to manage the uncertainties and irregularities which are part of the reality of working life...
- being able to recognise and manage the technical skills and tasks which they use or carry out within their work role...
- being able to modify their skills and competence to meet the needs of different work environments...'

Training Agency (88/89 No3)

Commentary

There is frequently confusion between competence and performance (Wood and Power, 1984). In the sense of the definitions above, competence is a quality possessed by an individual as a result of learning. A performance is the expression or demonstration of that competence in some particular circumstance. Competence may be *inferred* from a succession or variety of performances. Conversely, one may predict from knowing that someone is competent that they will perform successfully in certain circumstances. The scope of such inferences and predictions is a major issue for assessment and therefore in defining competence in practice, particularly in the case of *occupational competence*.

While competence can be used to refer to ability to perform any form of cognitive or practical activity, in VET it is usually applied to occupational activity. Here, increasingly, there are standards, or *standards of competence* against which (occupational) competence may be judged (see also criterion-referenced assessment).

In policy-led work the term occupational competence now incorporates the idea of occupational standards. It therefore does not refer to the unique characteristics of an individual worker, but incorporates a measure against which individuals may be judged for the purposes of formal or informal accreditation. A person is said to possess occupational competence if s/he satisfies the occupational standards agreed for the particular occupation being considered.

The origins of these developments lie in the New Training Initiative (MSC, 1981a; MSC 1981b). Even though the term 'competence' was not used, the process of identifying new standards (of skill, as stated) was initiated.

A further influence on the development of the definition quoted was the YTS design framework which included, as a composite definition, four components of occupational competence:

- Competence in a job and/or a range of occupational skills
- Competence in a range of transferable core skills
- Ability to transfer skills and knowledge to new situations
- Personal effectiveness

Occupational competence is a concept broader than competence in a series of tasks. This idea is further reinforced (Mansfield and Mathews, 1985) in a discussion of the nature of occupational standards and job competence. In an attempt to show that even job competence is more than the carrying out of a series of tasks, they suggest that competence in a job requires skills in three components - tasks, task management and dealing with the role/job environment.

Both occupational and job competence must be broad enough to incorporate the competence of the 'multi-skilled' worker - a person carrying out activities which range across traditional job or occupational boundaries.

In the case of occupational competence and vocational qualifications, 'competence' is often used as a shorthand for standards of competence. It is not in this usage a quality of individuals, but the *measure against which individuals may be judged to be competent.*

Elements of competence in vocational qualifications are sometimes referred to as *competences*. Similarly, 'a competence' is used to refer to a limited set of actions, behaviours, or skills which someone is able to carry out. The terms, competency, and competences, are also used in these ways.

Use of the term, 'competence', is complicated by the slightly disparaging everyday use of the term 'competent'. Someone may be thought of as *merely competent* as opposed to expert or very good.

COMPETENCE OBJECTIVES

Definition
Competence objectives are behavioural objectives expressed in terms of work activity.

Commentary
This is a term, now obsolete, devised by MSC to refer to the intended outcomes of training, particularly in the context of YTS when it became a two-year programme. As defined above, it could form the basis for criteria for assessment. Competence objectives tended to be defined in terms of the 'average' learner rather than the absolute requirements of competence in work. They were thus input-led, rather than outcome-led as they were intended to be.

CORE SKILLS

Definition
The MSC core skills (see inside back cover) comprise a descriptive framework (the core skills framework) which has associated techniques for using it in the analysis of work activities. The 103 core skills were defined as 'those skills which are common in a wide range of tasks and which are essential for competence in those tasks' (MSC, 1984). They consist of skills arranged under the headings, number and its application, communication, problem-solving and practical skills. These four areas were chosen specifically to support the development of a *technically competent* workforce.

Commentary
Core skills provide a new language of skill for describing occupational competence. This new language is additional to job specific language and can be used across all occupations. Use of this language of core skills helps to develop learners' awareness of the skills they are already using and of their ability to use these skills to tackle new work activities.

When worker-learners analyse a task/activity undertaken in their work role (see core analysis), they note the core skills involved in the *context* of their application. For example, in the context of the job of an operating theatre nurse, Core Skill 1.1 would be noted as: ' *Count items singly or in batches* by counting instruments during the course of an operation'. Alternatively, in the context of a warehouse worker's job, Core Skill 1.1 would be noted as: '*Count items singly or in batches* by counting boxes of goods delivered to the warehouse'.

The core skills thus provide a vocabulary for *naming* facets of competence which have *potential* for transfer. They therefore provide a tool for worker-learners and trainers to use to explore and highlight opportunities for skill transfer. Using MSC core skills assists with learning activities for a variety of outcomes including skill transfer and also being able to analyse how skills have been applied in different occupational activities.

Core skills are learned and developed in the course of routine and non-routine occupational activities. They can be a recognised part of a learner's programme, in that s/he can be given feedback on how core skills have been used, and achievement and application of core skills can be recognised. They cannot, however, be formed into a conventional syllabus as they cannot be learned or developed in isolation from real activity. In this sense they are very different from the generic skills of A de W Smith (Smith, 1978). Neither are the core skills necessarily low level, basic or introductory skills which have to be mastered as a first stage before progressing to other learning.

Core skills exist in the sense that they form part of performance in all kinds of occupational activity. Their possession by an individual is inferred from performance. Each core skill is really a class or type of skill, or a *facet of competence*. It may exist at various levels of, for example, complexity or difficulty. A learner cannot be said to have mastered a core skill for all contexts or applications.

The search for a tool to use in VET for *planning learning* in order to help individuals develop new kinds of occupational competence has been going on for many years (see Appendix 4). Major difficulties have been that not enough is known about how people learn, what kinds of skills are needed for occupations of the future, or about the concept known as transfer of learning or skill transfer.

In this context the MSC core skills were *designed* to have a number of functions throughout VET (see the core skills framework). The design methodology included a three-year field project (the ESF YTS Core Skills Project) funded by the European Social Fund in which the *application and further development* of the core skills framework was developed with the help of MSC field staff, trainers, FE staff, workplace supervisors, employers, and YTS trainees (see Levy, 1987a).

An additional project, called Quality in Education and Training (QET), was funded by MSC and undertaken jointly by the London University Institute of Education and the OECD. This project examined the ESF YTS Core Skills Project from an international perspective. One of the nine 'international' papers written for QET provided an examination of the MSC core skills as a tool for learning within the context of practical research work on metacognition and current metacognitive theory (Biggs, 1985).

Reading

Levy M (1987a)
Work Based Learning - Tools for Transition
FESC Information Bank No 2261

Levy M (1987b)
The Core Skills Project and Work Based Learning.
Sheffield: MSC

Levy M (1988)
The role of core skills in work-based learning. Article in Transition, October 1988

Levy M and Mathews D (1989)
The MSC Core Skills. FESC Information Bank No 2283

Mathews D (1987a)
The development of the YTS core skills - derivation and characterisation. Draft. FESC Information Bank No 2262

ENTERPRISE

Definition

Enterprise is: 'The willingness and ability [of individuals] to take a pro-active, self-determining and flexible approach to influencing and shaping their own futures - in particular to identifying and developing opportunities, resources and their own talents.' (Grant, 1985)

Commentary

Enterprise is a term increasingly used by government departments and which frequently includes a variety of different ideas:

- Educational activities directed towards the skills and 'know-how' of running businesses

- Qualities of an individual within the workplace and other purposeful, working environments eg an enterprising person is someone who can take the initiative, show drive and determination, make decisions, manage resources, influence others

- The act of starting up a new business; often associated with self-employment

The Education for Enterprise Network was formed in 1982. The concept of education for enterprise is based on a broad concept of work which embraces work outside employment. Within what might be called the 'enterprise movement', however, a considerable amount of attention has been paid to setting up 'mini-enterprises'. (Grant, op cit).

Enterprise Initiative in YTS, launched in 1986, has concentrated on:

- Encouraging and supporting organisations in providing opportunities for trainees, and their own staff, to show initiative and to take responsibility for their own learning and development. In short to be *enterprising*
- Making it possible for 16/17 year olds with small business aspirations to develop them in the context of a 2 year YTS programme and to *trade whilst training*, at the same time gaining a relevant vocational qualification

In NJTS and, latterly, Employment Training, enterprise *training* has been designed as provision for people wishing to start their own business or contribute to some entrepreneurial venture. This is, again, a narrower interpretation of the concept than the idea of an enterprising individual who possesses qualities allowing him/her to perform with initiative etc. in a variety of contexts. One could, for example, be enterprising within a large bureaucracy, a college of FE, a university, a company, or in the community.

Small firms services are organised under the banner of enterprise. The Department of Trade and Industry (DTI) characterises itself as the *Department for Enterprise*. The *Enterprise in Higher Education* initiative led by Training Agency is directed at developing qualities of enterprise in HE students through the partnering of HE institutions and employers.

FOUNDATION TRAINING

Definition

Foundation training in occupational training is the organised learning of basic skills appropriate for a specified occupation or range of occupations.

'Foundation training develops general skills. It does not have any particular occupational focus.' (Training Commission, 1988)

'Foundation Training is a stepping stone to Occupational Training and should be designed to remove barriers to progress into occupational training.' (The Training Agency, 1988/89 No 4)

Commentary
Foundation training is associated with broad-based training and with basic skills. Foundation training need not be, as is often assumed, low level. Its essential character is *underpinning*, but can also be associated with *preparatory training* (see also diagnostic assessment). Foundation training may, for example, be needed for a graduate to start learning to use an unfamiliar computer system. Such training may precede work on the system or take place concurrently with more task-oriented training on the system.

Foundation training may be used to enable access to other more specific or higher level training, to inform occupational (or at least programme) choice, to support learning which otherwise concentrates on the procedures needed for a specific task.

Foundation training has been seen by such organisations as the Industry Training Boards as having an occupational focus and forming a basis for the acquisition of further occupational skills. There are, therefore, many different types of foundation training. Foundation training for engineering craftsmen is different in type from foundation training for clerical officers, for example.

Pre-vocational education (as expressed, for example, in CPVE) may be considered to have a foundation training role, particularly in informing occupational choice and in enhancing skills capable of being deployed in a variety of occupational contexts.

In Employment Training (as in the Training Commission definition above) foundation training for many participants is often concerned with more general provision for learners who are not able to proceed immediately to occupational training. This may be barely oriented at all towards occupations, although it can include 'job tasters', and is likely to provide remedial learning/training, sometimes known in this context as basic skills. In the later definition of Employment Training (see the Training Agency definition above) foundation training is seen as including occupational skills and knowledge needed to remove barriers to entry to an occupational area at a higher level than would otherwise be possible. For example, an individual with considerable experience of servicing vending machines, and who has some technical qualifications, wishes to become a TV and Radio Service Engineer. His/her foundation training can include increasing his/her knowledge of the use of computers and digital equipment in industry in preparation for occupational training. (see Training Agency, 1989d).

In *Foundation Training Issues* (Hayes et al, 1982) the scope of foundation training included basic skills, world of work skills, personal effectiveness, skill ownership and job-specific skills. This represents a concept of 'foundation' as initial preparation for occupational development.

GENERIC SKILLS

Definition
Skills which are fundamental to a class of activities. Generic skills have been described as 'those job behaviours which are actively used in work performances, which are transferable from one job or occupation to another and which are needed for promotion to supervisory status.'(Smith A de W, undated but distributed 1978)

Commentary
The concept of generic skills was developed in Canada, where the Department of Immigration and Labour was engaged in trying to match the existing skills of immigrant workers to occupations available in the job market, and to generate remedial packages of instruction to ease job transition (see transition) and entry processes.

Generic skills were identified, by a survey method, in the areas of mathematics, communications, reasoning, interpersonal relations, science and manipulative skills. The findings were also used to look at the potential for skill transfer between one type of job and another.

The language used by the survey (to interrogate workers and supervisors as to the skills they used in their jobs) appears in mathematics, to have drawn on a mathematics curriculum language in which *mathematical operations* are used. For example, do workers on the job perform: addition/subtraction; use decimals; compute percentage; multiply and divide fractions; use ratio; calculate rates; solve word problems with decimals? In communication, however, the language of interrogation was less directed to the English language curriculum, but more to the *application* of language in communication processes. For example, do workers on the job: use a dictionary; use books, know plurals; interpret oral instructions; speak fluently; write sentences/short notes; give directions/information?

Instructional packages were developed for 'core' or 'generic' mathematics and communication skills (the process of constructing curricula from generic skills used an educational or input-driven model, that is, developers used the 'generic' skills to construct a teaching syllabus from them). However progress in converting the Generic Skills research into curricula was reported as disappointing (Melling, 1979).

Teachers trying to use such curricula with adults found they also required diagnostic tests, to identify which 'generic skills' were already known by the learner, thus indicating where tuition was not required. This led to the development of individualised learning programmes as the primary curriculum delivery method.

For several years the MSC had a Grouping of Skills programme of research with aims which had some overlap with the Canadian research. The original idea was:

> '...to develop a common universal language, like Esperanto, for describing the world of work. The aim was to help trainers, employers, manpower planners, careers advisers and others to relate what people are capable of to what jobs require. It was originally hoped that one multi-purpose language or descriptive system could be developed to the point where all jobs could be analysed into their component elements. Thus, for example, clusters of fundamental or generic skills could be identified and people could be trained in these skills in ways which would facilitate transfer between occupations...'

(MSC, 1982a; MSC, 1982b)

This early research work was taken into account in the development of the MSC core skills language, core analysis processes for enhancing - among other things - skill transfer, the core skills framework approaches, and the new curriculum model for the delivery of VET, known as work based learning (Levy, 1987a; Levy 1987b).

There are considerable differences between generic skills as proposed by Smith and the MSC core skills (Levy and Mathews, 1989; Mathews, 1987a).

The MSC core skills are *classes* of skill rather than fixed individual skills. Each core skill may exist at various levels of complexity or difficulty.

The MSC core skills cover the four core areas of number and its application, communication, problem solving and practical skills. However, the core skills of 'number and its application' contain no specific mathematical operations, rather, they include the kinds of *thinking processes* which are involved in the use of number in work.

The MSC core skills developers took on board the need for analysis of real work activity to identify workers' learning/training needs. Thus the 103 MSC core skills do not comprise a syllabus as was the intention for the Smith generic skills. Rather they provide a framework and a language for describing skilled performance. This means that workers can learn to describe the core skills they have used in the context of particular instances of performance. This analytical (or outcome-led) approach helps trainers/tutors/supervisors identify where *new* kinds of learning should be supported because learners *existing* know-how has been identified.

Another important aspect of worker-learners being able to carry out an analysis of their own skills and to name their own skills, is that it promotes greater awareness of those skills and how they have been used. This offers a way in which learners, and those who support their learning, can develop the potential to transfer their skills to new work activities and situations.

INDIVIDUAL DEVELOPMENT PLAN/INDIVIDUAL ACTION PLAN

Definition

An Individual Development Plan (IDP)/Individual Action Plan (IAP) is a means of specifying and reviewing a programme of learning for an individual learner.

Commentary

The 'programme' covered by an IDP may range from a training/education course to a period of development within a job. The terms *Individual Career Plan* and *Individual Action Plan* refer to similar concepts of planning. In the Training Agency Employment Training programme, the recently introduced term *Personal Training Plan* (PTP), (Training Agency, 1989d; Training Agency, 1989e), again has similar concepts associated with it.

An IDP is not a conventional training programme intended for groups of learners: it should be *genuinely individualised*. It applies to *one* learner only, being based on his or her previous experience and achievement and present aspirations. The IDP can help with decisions about how to use specific options and learning opportunities. These options may include joining a group on a specific course, for example, at a college; undertaking a specific module by open learning or flexible learning; seeking specific work experience or on-job training.

An IDP is a document for planning learning, but it is not fixed for all time. Like any plan which has to be implemented it will involve continuous review and revision as changing circumstances demand. Drawing up and reviewing an IDP involves investigation and recognition of previous learning and achievement, so providing information both for learners and those who organise and support their future learning. The IDP provides the basis for judging both the success of action taken and the achievements of the individual concerned. Taking part in 'IDP processes' will be of long-term value to the learner in helping him/her to forward plan and to chart his/her progress (see also Action Plans in Training Agency, 1988/89).

The functions of IDPs include:

- Helping learners to become aware of their immediate and longer term learning needs in a specific context

- Ensuring that the learning programme designed for each learner genuinely meets his/her individual needs

- Involving the learner in the planning, monitoring and recording of his/her learning and achievement

- Providing a record of agreement about the learning to be undertaken by, and the learning opportunities to be made available to, the learner

- Helping to establish and maintain coherence across and within the different learning opportunities provided

- Providing a framework for discussion and decision-making on assessment and certification

Reading
Mathews D and Watson R (1989)
Individual Development Plans and the training of operators in the workplace. FESC Information Bank No 2286

INTERPERSONAL SKILLS

Definition
Interpersonal skills are skills used in relating to and dealing with other people.

Commentary
Interpersonal skills can be identified at a variety of levels of detail. At one level the description of such skills may include eye contact, body posture, hand movement, intonation, verbal fluency, interruption strategies and so on. Another approach may deal in a

more general way with handling of customers, including the content and form of conversation, responses to supervision and, outside the workplace, approaching public or private agencies. The latter approach was to be found, for instance, in social and life skills training adopted in YTS and other programmes and courses.

Aspects of interpersonal skills are included in the core skills, where many of the communication skills reflect interpersonal skills analysis. Interpersonal skills also overlap with the concepts of personal effectiveness and with the area of social and life skills.

JOB COMPETENCE

Definition

Job competence is more than the carrying out of a series of tasks. It requires skills in three components - tasks, task management and dealing with the role/job environment. (Mansfield and Mathews, 1985)

Commentary

Task skills are associated with well-defined activities with distinct and recognised outcomes.

Task management refers to the organising of tasks, responding to unpredicted events, problems and difficulties, prioritising tasks or activities, organising time so that individual tasks are carried out efficiently. The job may also include responsibilities which intrude on routine tasks (for example, being responsible for monitoring the office stock cupboard): dealing with these responsibilities requires skills in addition to those required for specific tasks. (Later developments of the 'job competence model' separate a fourth component of 'contingency management skills' from the task management component. This has to do with, in particular, unpredicted events.)

Skills of dealing with the role/job environment reflects the fact that the worker is affected to a greater or lesser extent by what goes on around him/her. Job competence requires skills of controlling or responding to the physical and social environment. This may include working directly with other workers and people coming from outside the workplace. It also includes skills of responding appropriately to the physical environment; for example, in respect of health and safety hazards.

A helpful discussion of learning approaches and learning contexts associated with some aspects of job competence at managerial level is provided in Honey and Mumford, 1986.

Reading
Mansfield B and Mathews D (1985)
Job competence: A description for use in vocational education and training. FESC Publications

MOBILITY

Definition
Mobility refers to an individual's or the labour force's potential for movement within the labour market. This mobility can include geographical or occupational mobility.

Commentary
Work based learning and other forms of learning in VET aim to improve occupational mobility. This can take effect within the local or national labour market, and can involve changing jobs within an occupation or between occupations. It makes particular demands on employment selection systems as well as on VET. Mobility is made easier by the recognition and use of:

- Skill transfer
- Credit transfer
- A common language of skills (see core skills, core analysis and core skills framework)
- Identification of training need

All the above areas are currently the subject of intensive development work funded by the Training Agency and/or the National Council for Vocational Qualifications. Of special interest for occupational mobility will be the outcomes of development work on core units (NCVQ), and generic units (Training Agency).

OCCUPATIONAL SKILLS

Definition
Occupational skills are the skills characteristic of activities in a range of related jobs, and which contribute to competence in those jobs.

Commentary
For someone to be competent in a job they clearly need to have acquired skills which enable their performance to meet the required standards. These skills may have use outside the specific job, and enable a worker-learner to undertake a range of jobs within an occupational area, and may thus be described as 'occupational skills'.

PERSONAL EFFECTIVENESS

Definition

Personal effectiveness is frequently taken to be that part of occupational competence concerned with personal, even personality, attributes rather than skills or knowledge (see also occupational competence).

Commentary

The term has been defined through a variety of models and definitions. It has strong associations with interpersonal skills and with some aspects of enterprise. Acquiring personal effectiveness is also thought of in terms of social and life skills teaching which preceded it as an element in many VET programmes. Among the dimensions attributed to personal effectiveness are:

- Self-knowledge
- Self-confidence
- Maturity
- Responsibility
- Organisational ability
- Dealing with people
- Transfer of skill
- Handling situations in and out of work
- Self-reliance/autonomy
- Motivation
- Initiative
- Attitude
- Coping with authority
- Interpersonal skills
- Coping with change
- The ability to acquire and make use of relevant knowledge

Personal effectiveness suffers from the different perceptions which exist of what it is that makes someone personally effective. Sometimes these perceptions reflect different beliefs - that workers *ought* to conform, or that, in contrast, they *ought* to be innovative. Sometimes the perceptions differ because of the different needs of different contexts. It may be that in situation A, *conforming* is *appropriate* to getting a job done; in situation B it is not.

Personal effectiveness is also thought of differently when applied to young people compared to skilled and experienced older workers, and differently again when applied to older unemployed persons.

Given this variation it has proved almost impossible to define an agreed area of personal effectiveness or to list its components in a way which is free of personal and situational bias. Devising processes for assessing personal effectiveness to standards is also beset with severe technical and other difficulties.

PROCESS SKILLS/ PRODUCT SKILLS

Definition

'Product skills are those which lead to clearly definable outcomes - for example, typing 40 words/minute - while process skills do not lead to a clearly definable outcome, but to a capacity for interacting with the person's environment through, for example, planning, problem solving and learning'. (CSRU, 1979)

'Process skill: a skill which is demonstrated in the conduct of an activity rather than in its outcome. Product skill: a skill which results in a specified outcome.' (FEU, 1984b)

'Process skills are the cognitive competences which enable an individual to organise his/her behaviour to produce a desired outcome.' (Edmond, 1985)

Commentary

The distinction between process and product skills can be seen as an early attempt to highlight the less tangible skills required in competent performance in addition to more tangible, practical task skills. The concept of process skill is very close to that of metacognition. Metacognition refers to an awareness of our own cognitive processes (thinking and learning activities) or 'knowing about what we know' (Resnick, 1976). Process skills can be seen as those skills used not only to control and know the world around us, but also to know about and control our own thinking. It may be these skills which enable us to be good learners and to transfer and adapt existing skills to new situations (see also Biggs, 1985).

Gealy (1986), defined product skills as 'skill at producing a specific product' and contrasted them with process skills - skills 'in a general process (method) which can be used in a variety of applications'. Since products are the result of processes (it would be very difficult to produce any specific product without using a method), product skills will tend to be used alongside process skills according to this way of thinking.

Edmond's analysis (Edmond, 1985) is more helpful since it thinks of *performance* as the 'product', and 'product skills' as those directly observable *within* the performance, while process skills are those which *lead up to* and *control* the performance.

Process skills, in line with their characterisation as cognitive and problem-solving skills, have been described as the skills 'characteristic of problem solving by the scientific method [and] important in learning from any task or experience' (Henebery, 1984), while their use extends beyond the scientific method to other forms of problem solving used in occupational or technological contexts.

The concepts behind the distinctions between process and product skills are quite powerful but as yet undeveloped for use in learning activities.

Reading

Edmond N (1985)
Process skills in the curriculum of youth training schemes in France and England. Unpublished M Phil dissertation, University of London Institute of Education.

PROGRESSION

Definition

The single term 'progression' often refers to two distinct concepts; vertical and lateral progression (Levy, 1987). Vertical progression is movement to higher status jobs or courses, frequently associated with specialisation and/or qualifications, or movement into a supervisory/management role. Lateral progression involves no obvious change of status in work activity, and formal qualification is not seen as necessarily of much relevance. It may involve acquiring a greater range of skills, and may give greater job satisfaction.

Commentary

Progression is related strongly to mobility and can be an instrument of company personnel policy or national policy. Effective processes of progression are dependent in turn on accreditation, selection, credit transfer, skill transfer processes and access arrangements.

Vertical progression may have the higher social status, being particularly associated with an increase in income and/or power. The changing nature of employment and the technologies it involves, however, may mean that lateral progression is very important in the labour market. Lateral progression may also be undertaken by an individual seeking greater income (where companies are competing for staff), personal career development, to gain respect among colleagues, to increase the range of his/her skills.

An aspect of 'progression' rarely mentioned, but which will be a major consideration for mobility in the workforce, is transition across different kinds of interfaces such as work, education/training, different occupational sectors, all of which can take workers into new roles. This is closer to lateral progression, and an issue that would almost certainly arise in such transition would be the need for selectors and gatekeepers to be able to 'match' different kinds of qualifications (including those based on competence in the workplace) with the skills, knowledge and experience needed on the other side of the interface. A further issue would be the provision of say, foundation training.

QUALITY

Definition

Within VET there are various concepts of quality which encompass:

- Meeting the personal development needs of the individual learner
- Meeting the skill requirements of employers according to established standards
- Consensus ideas as to what constitutes 'good' provision
- Within corporate planning, the cost of training, its effectiveness, and short and long term added value.

Commentary

Given the rapid changes that have been taking place in the field of VET, it is a frequently repeated plea that speed of implementation should not be at the expense of quality. However, there exist many different interpretations of quality within VET. Quality may focus primarily on delivery: on the *inputs* to training (the knowledge content prescribed for a course, the syllabus, the facilities and opportunities made available to trainees, equipment, breadth of training). It may focus on the *outcomes* of training: the competence, skill, knowledge attained by the learner. It may focus on the *costs* of training to the employer and/or employee.

Whether referring to costs, inputs, outcomes or all three of these, identifying the quality of training depends on making explicit the criteria by which quality may be judged. Applying those criteria by examining the provision in various programmes is a process of *quality monitoring* (see also *verification*). Some strategic approaches to quality monitoring have been addressed in recent publications (DES, 1987; MSC, 1986; NCC, 1989).

RELATED KNOWLEDGE

Definition

Related knowledge in any particular occupational area is the knowledge required for the achievement and practice of competence.

Commentary

Traditional models of education and training have, through agencies such as the vocational examining and validating bodies, identified and specified *related* knowledge which goes to make up the syllabus for a specific VET course. This specification has often been made without detailing the precise *nature* of the relatedness of the knowledge to successful performance. These models have therefore sometimes reinforced the separation of theory from practice and of knowledge from skill.

The problem has often been that the knowledge specified is divorced from competent performance and learners have found it difficult to make the links. The knowledge content can be seen as arbitrary, and may be structured according to hierarchies of learning that are imposed on learners rather than structured according to the worker-learners' needs arising from their individual work roles and jobs. In particular, the knowledge content of many courses is sometimes seen as a requirement of an examination rather than a contribution to competence in the job or work role (see also work-related learning).

Related knowledge may properly derive from two considerations. First; where specific knowledge is required for competent performance in the context and work role in which the worker-learner finds him/herself, or in which s/he is likely to be placed in the future. Second; where specific knowledge is needed by that learner-worker during the process of *achieving* competence. These needs may be identified in advance or may be revealed during the learning process.

SKILL

Definition

Definitions of the term 'skill' include:

'Facility gained by practice or knowledge'. (Gealy, 1986)

'The facility to carry out a task or part of a task'. (FEU, 1984b)

'Skilled behaviour is goal-directed and yet flexible in structure and strategy'. (Singleton, 1974)

'Skills are concerned with the organisation of inputs and outputs. The exertion of force is not a skill in itself but the controlling of direction and position and graded application does require skill. Similarly, visual or auditory reception of stimuli is not skilled until these inputs are selected and organised'. (Singleton, 1974)

'Psychologists use the word skill in a broader sense than do trade unionists or sportsmen. Man's everyday activities demand the exercise of countless perceptual-motor skills - many of which go totally unremarked. The simple acts of walking, picking up a cup or articulating words are all skills. They require the co-ordinated integration of sensory information and muscular responses to attain some specifiable goal. More complex skills such as driving a car or operating a lathe make similar but greater demands on man's central nervous system'. (Legge, 1970)

'Both habits and skills have to be learned, and once they have been learned, each can be said to be *habitual* in the sense that there is economy of action and there is little need for close conscious attention on the part of the performer. There are, however, a number of fundamental differences between the nature of skill and the nature of habit that cannot be obscured by these superficial similarities...the more perfectly a habit is learned, the more independent it becomes of the environment...in skill, efficient performance demands a complete absence of rigidity or stereotyping. The important thing in learning a skill is not to acquire a rigid set of movements that can be activated whenever a suitable stimulus presents itself, rather, it involves learning *how* to make actions that are appropriate to any particular situation'. (Wright et al, 1971)

Commentary

Skill may refer to a specific facility which is used in carrying out one or more activities. Alternatively it may refer to the total facility possessed by an individual (the person's skill) or an occupationally defined set of specific facilities (eg milling skills, clerical skills etc).

Traditionally skills were seen as observable, practical aspects of task performance, but in more recent years their cognitive component has been recognised, along with interpersonal dimensions. It is now usual to refer, for example, to number skills, communication skills or problem solving or planning skills. (See core skills, interpersonal skills.)

Loose use of the term 'skill' has sometimes caused confusion, particularly when it has seemed to include other aspects of competence. For example, basic skills may encompass 'knowledge of how to find a job and an understanding of matters relating to employment in general' (Jameson-Wray et al, 1980), and coping skills may entail 'all the bits of information, behaviour and decision making which are required in order to go about one's daily life' (Pearn, 1977).

Skills contribute to competence, and to the achievement of elements of competence. In the context of NCVQ development work the dominant interpretation of both of these concepts is that they represent standards defined *independently* of the individual, whereas skill differs from them in being a learned attribute of the individual. (See also skill ownership.)

SKILL OWNERSHIP

Definition

A skill is said to be 'owned' by the individual if s/he is capable not only of employing that skill under predetermined conditions, but has the facility to deploy that skill in a range of situations and contexts, including redeployment in unfamiliar ones. This definition is associated with the process known as training for skill ownership (Hayes et al, 1983).

Commentary

Given the definition of skill as a facility acquired by individuals, the 'ownership' in skill ownership might be considered redundant. Popular use of the term skill, however, includes the practice of tasks through rigidly controlled, over-learned procedures. Skill ownership was an attempt by Hayes (op cit) to highlight the poverty of such an approach within occupational training by asserting the need and right of the individual to be able to carry out work activities and use his/her skills in a variety of circumstances.

In Training for Skill Ownership (Hayes, op cit) the identification of the elements of skill needed for different types of job carried out by *young people* was identified in 'work learning guides' for a succession of occupational areas - called Occupational Training Families (OTFs), eleven in all. Each work learning guide had a Key Purpose for the occupational area (for example for Craft and Design, the key purpose was 'creating single or small numbers of objects using hand/power tools'). It then included an analysis (or entailment structure) of what competence was essential to achieve that purpose in a wide range of jobs within the OTF and how the young person could contribute to the efficient running of the organisation.

Skills defined in this way were expressed in a more generally applicable way, and were intended to be learned in such a way that learners had a greater degree of autonomy in their application than set procedures tended to allow. The approach was designed to enhance processes of skill transfer.

An important corollary of skill transfer is that learning programmes should encourage learners to recognise the skills they use in carrying out work activities. This in turn requires appropriate frameworks for learners to use in analysing their workplace activities in terms of skills used (see core skills framework and job competence). This process of analysis is also important to the recognition that skills for a given occupation may well be learned through the medium of a different occupation.

The MSC core skills provide a vocabulary for *naming* facets of competence which have potential for transfer. This can be a particularly important aspect of a person's awareness of their own skills. For example, someone would be perfectly well aware if they had been responsible for making hotel and travel bookings. Typically they would dismiss this as 'using the telephone' or some equally superficial description. The core skills, however, can help them to recognise that they had exercised skills such as 'find out information from written sources' which might be of relevance to situations far removed from hotel bookings or the telephone as a mode of communication. Core analysis which enables such examination of essential skills is a tool for worker-learners and trainers to use to explore and highlight opportunities for skill transfer.

Reading

Mathews D (Ed) (1985)
Case Studies on the Implementation of Training for Skill Ownership. FESC Information Bank No 2086

Levy M and Mathews D (1989)
The MSC Core Skills
FESC Information Bank No 2283

SKILL TRANSFER

Definition

At a general level, skill transfer is the phenomenon whereby an individual is more effective in a new situation as a result of previous acquisition of skill or where a new skill is learned more rapidly as a function of previous learning. This is sometimes referred to merely as 'transfer'.

Commentary
It is often convenient (Levy, 1987b) to treat skill transfer as being made up of two components:

- Transferable skills

- Skills which enable transfer

The provision, in learning programmes, of transferable skills (the 103 MSC core skills) has been an attempt to broaden learning beyond the job-specific and the task-specific. Use of core skills highlight this potential for transfer in work activity.

The explicit attention given to skills which enable transfer (sometimes, rather misleadingly, called 'ability to transfer') is an attempt to enhance naturally-occurring transfer, especially of those skills where the highest potential to transfer seems to exist. The phenomenon of thinking about transfer or skill deployment is part of the focus of the study of metacognitive skills (see Biggs, 1985 and also product/process skills.)

The whole of behaviour, and certainly learning, is dependent on skill transfer: the application of accumulated skill to situations of varying degrees of newness. Competence, accreditation and progression presuppose skill transfer. Competent job holders are expected to cope with new tasks without having to start their learning from scratch. The expectation associated with occupational competence is that someone can, by virtue of occupational experience, realise his/her potential for a number of related jobs.

There is often an assumption in education and in VET programmes that there is some 'magic' quality about transfer - that if a learner learns something in one context, s/he will automatically be able to apply that learning to other contexts. For example, learning mathematics or scientific principles in the classroom or laboratory will mean that these can be immediately applied to real work activities. Research shows that this is not so, and a number of research programmes are investigating, for example, the relation of learned theory to the *application* of that theory in practical situations.

Research work has also been undertaken which shows that *how* something is learned affects the way in which it can be transferred to, or used in, new situations (Wolf, 1989; Sternberg and Wagner, 1986).

Reading

Mathews D (1986a)
The Accreditation of Ability to Transfer Skills and Knowledge to New Situations - A Paper for Discussion.
FESC Information Bank No. 2201

SOCIAL AND LIFE SKILLS

Definition

Despite its use in policy and guidance documents, there is no formal definition of the compound phrase 'social and life skills'.

Commentary

Although in 1977 MSC published a document entitled 'Instructional Guide to Social and Life Skills' this in fact separated the concept of social skills from life skills and departed from the origins of the earlier work on which the document had been based (Pearn, 1977). In the Instructional Guide, *social skills* were defined as: 'The skills needed when dealing with other people both at work and in private life' and *life skills* as 'the skills we need to go about our daily lives' (MSC, 1977).

The *compound term* however gained currency in this country with its promotion by MSC using the above document within vocational preparation, through the work of the Rubber and Plastics Processing ITB and the Unified Vocational Preparation Programme which preceded YTS.

Because 'social and life skills' (SLS) was undefined, a wide variety of interpretations was being used by tutors/teachers in programmes and courses. The Further Education Unit therefore initiated two major projects, the first to investigate what was actually being delivered in the 16-19s field under the heading 'social and life skills', the second to carry out a review and synthesis of research and development in associated areas. The first project resulted in a publication (FEU, 1980) which offered seven models of SLS development based on what was currently being delivered in the field, and staff development strategies for using these. The second project resulted in a publication, (Lee, 1980), which showed that the concept of social and life skills drew heavily on North American training approaches to *life skills*, and that social and life skills was distinguished from other *social education* provision by its emphasis on the social demands of work and everyday life. It overlapped with interpersonal skills and the more recent personal effectiveness. As it developed within YTS, the concept very quickly became loaded with notions of social support and remediation. It was bound by the context of youth unemployment rather than relating more broadly to the needs of workers in general. The concept was the focus of much controversy in the early days of YTS, with the existence of quite different interpretations of the term. The term has now largely been dropped from Training Agency programme guidance, having been generally replaced by personal effectiveness. However the two terms, *social and life skills* and *personal effectiveness* should not be treated as synonymous, although some of the technical issues associated with their clarification may be similar. Personal effectiveness developers might find it well worth while to revisit the social and life skills developments.

TRANSITION

Definition

Transition is the process of change for an individual from one context, state or status to another.

Commentary

A term increasingly used in VET circles, 'transition' often begs the question 'from what to what?'. The phrase 'transition training' is generally used to refer to training aimed at young people undergoing the transition from school to work (see pre-vocational education/ vocational preparation). However, given the growing importance of change in people's lives, because of economic, demographic and technological change, it is clear that 'school to work' is far from being the only transition people can be expected to face in their working lives. There will be the change from school to work, work to unemployment and vice versa, one kind of work to another, full-time to part-time work, employed working to self-employed and so on. The Core Skills Project (Levy, 1987a) explored the issue of transition in terms of structural issues (new certification, new standards, and progression); in terms of skills needed for flexibility and adaptability, and for learning to learn; and in terms of the need for a common language of skill to facilitate mobility and skill transfer.

The Work Based Learning Project (see Appendix 3), in its current field work, is developing tools and approaches to aid learning and preparation for transition. These are applicable to all ages of workers and all occupational areas. They include individual development plans and suggestions for structuring learning in the workplace.

Reading

Levy M (1987a)
Work based learning - tools for transition.
FESC Information Bank No 2261

SECTION 2 Methods and approaches in new VET including work based learning

Changes in the vocational education and training (VET) scene of the last decade have given rise to the development and use of new approaches and methods. *Work based learning* provides a new curriculum model for the delivery of VET. The model, with its associated curriculum tools and approaches to implementation, is designed to support the aims of the New Training Initiative, especially that of developing a more versatile, adaptable, technically competent, highly motivated and mobile workforce. This aim requires new approaches to engaging learners in learning, new content and outcomes of learning, and new relationships between the learner and the tutors/supervisors/trainers who facilitate his/her learning (in relation to this last feature see Varlaam and Pole, 1988).

This section discusses learning methods and approaches which have application within work based learning. Not all of these are specific to work based learning but will enhance learning in VET whatever delivery model is used.

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ALTERNANCE

Definition

'Alternance is the development of effective links between training and work experience...implying the establishment of structured and coordinated programmes allowing cooperation between the different agencies concerned. These programmes should be set up taking into account the necessity of offering a broad training base to meet the requirements of technological developments and changes in work [and] a minimum period should be guaranteed for off-the-job training.' (EEC, 1979)

Commentary

Alternance - a French word - derives from the *alternation* between periods of training on-the-job and off-the-job and working. It requires the integration of the relevant components of training, not just their co-existence (Jallade, 1982). Work based learning is a model for the design, delivery and accreditation of vocational education and training which, by its structure and process, satisfies the requirements of alternance.

Reading

Boffy R, Bailey P and Valentine R (1985)
Core skills and Participative Learning. FESC Information Bank No. 2088

Edmond N (1985)
Process skills in the curriculum of youth training schemes in France and England. Unpublished M Phil dissertation, University of London Institute of Education

CORE ANALYSIS

Definition

Core analysis is a process of analysis using the core skills framework in which the core skills (see inside back cover) used and/or required by the worker-learner are identified by *inference* from the worker-learner's actual or intended activity.

Commentary

Core analysis is used to deliver many of the functions of the core skills framework. It is a process as much used by learners as by those who manage their learning or give instruction. It is not an analysis system purely for specialists, although it is clearly possible to become expert in its processes. A number of approaches to core analysis have been developed. These include:

- Various ways of using the core skills framework to break down tasks/activities into elements, in order to identify how the core skills were used in these. One way includes first identifying the core skill *keywords* in the task/activity. A keyword is the 'action verb' contained in the phrasing of every core skill. There are 35 keywords in all compared with 103 core skills (Levy and Mathews, 1989). This process helps lead the learner to identification of a specific core skill used in the task/activity and to recognition of the way in which it was used in the context of the activity

- Competence Analysis Flow Chart: a paper-based, step-by-step procedure for identifying which of the 103 core skills are used in the analysed activity

- The Compet family of computer programs - step-by-step analyses based on the Competence Analysis Flow Chart and designed for use on BBC and IBM-compatible machines

Reading

Prescott B (1986)
Competence Analysis Flow Chart. FESC: Publications

Work Based Learning Project Team (1988e)
Compet 2 Computer program for IBM PCs and compatibles. FESC: Publications

Work Based Learning Project Team (1988f)
Skills Speak 2 Computer program for BBC Model B/B+/BBC Master. FESC: Publications

Work Based Learning Project Team (1989b)
Staff Development Manual on the Use of Analysis in the Implementation of Work Based Learning (In Draft).
FESC Librarian

CORE CURRICULUM/ CORE SYLLABUS/ CORE UNITS

Definition

Core curriculum is 'the learning experiences which all young people in a given system must acquire as a minimum. The essential ideas and values which must inform a curriculum, its design and development.' (Skilbeck, 1985)

A *core syllabus* is a narrower, more detailed specification of the common minimum knowledge or skills content prescribed for all learners. In VET, *core units*, defined (NCVQ, 1989a) as units of competence which are basic and common to a number of occupations and national vocational qualifications, possibly have quite a lot in common with the concept of core syllabus.

Commentary

Core curriculum is a concept usually associated with mainly educational programmes, but it could apply to any aspect of the VET system. Very often, however, the curriculum of *training* programmes and approaches is not recognised as such. Core curriculum has been, and continues to be used as a powerful policy instrument. It can be used to orientate programmes to some implicit or explicit end, usually justified by national interest or the rights of learners. In its detail it 'is usually used as a...term to indicate that there are some subjects which are more important than others, and therefore should be compulsory' (Gordon and Lawton, 1984).

The Baker speech at ACFHE in February 1989 raised an important policy issue under the heading of a core curriculum for further education.

'A core curriculum for further education...I now turn to a big question which remains. What is the central purpose of further education? Why do we believe that college-based vocational education is worthwhile, and what do we hope that students will derive from the experience?

'There can be no single 16-19 curriculum...But I think we do know broadly what we are trying to achieve. We want to equip young people with knowledge and skills so that they have greater chances. In the changing employment world they will need broadly based qualifications. They will want to show employers flexibility. They will need to be able to think and act independently. Otherwise, the next wave of technology will leave them stranded.

'As I see it, there are a number of skills - and I am still using that word in its broad sense - which young people and adults in future will all need. They could be expressed as a list of core skills - in, say, the following:

- communication...
- numeracy...
- personal relations...
- familiarity with technology...
- familiarity with (working) systems...
- familiarity with changing working and social contexts...'

(Baker, 1989)

Thus a new list of core skills has been proposed within an overall curriculum framework, which might be seen as a core curriculum in terms of the Gordon and Lawton definition above.

If, as Baker states, there is no *single* 16-19 curriculum, then a key issue remains: how will these things be learned and how will we know people can apply them practically in employment situations? One approach to this is to design a tool for analysis which enables learners and their tutors/supervisors to analyse skills used in performance; the prime function being to ensure that the use of core skills is continually being upgraded to encourage more advanced and sophisticated use of these skills. This is what the MSC core skills project set out to do (Levy, 1987a; Levy, 1987b; Mathews,1987a).

Also relevant to the issues addressed in the Baker speech, are the findings of work carried out within the Government funded Unified Vocational Preparation schemes of work based learning. An important publication (FEU, 1978) proposed an idealised learning model for young people. This included the importance of young people reflecting on their experience in order to learn by it, and also the value of using a vocational area to develop broad based learning. It is also important to consider process skills when formulating the aims of learning for young people.

Reading
Levy M (1985)
Curriculum Development in YTS. FESC Information Bank No 2079

CORE SKILLS FRAMEWORK

Definition
The core skills framework is the set of those core skills identified and developed during the Core Skills Project. (Levy, 1987b)

Commentary
Any method of job or occupational analysis may have two components:

- a descriptive framework
- a means of applying that framework to the subject of the analysis

In the above statement the *core skills framework* (the descriptive framework) was developed through a combination of research and field development activity. For the *means of applying that framework* (developed through field activity) see core analysis.

The core skills framework (the inside back cover illustrates this) comprises:

103 *core skills* arranged in
14 skill *groups* covering
4 core *areas* (number, communication, problem-solving, practical)

The core skills framework provides a basis for the analysis of activities at work or in learning programmes (see core analysis) as a contribution to the design, delivery and accreditation of work based learning.

The framework was designed to provide a new, additional language of skill for more comprehensively describing occupational competence. It was accompanied by analytical tools to assist with the recognition and accreditation of the kinds of skill essential to competent performance in work activities at all levels and in all occupations. The framework and the tools are being used in current fieldwork with adult workers and unemployed learners to assist with accreditation of prior achievement processes.

The core skills framework was designed to aid skill transfer, not by proposing a psychological model for understanding the mechanism of transfer, but by devising activities within the design and delivery of work based learning which increase and highlight the potential for transfer of skills to new contexts.

The core skills framework was particularly aimed at providing worker-learners, learners, trainees, tutors and supervisors with a means of analysing occupational activities which was not confined to specialists.

The core skills framework has a number of functions through which it contributes to the design, delivery and accreditation of work based learning. It:

- Provides a new language of skill for describing occupational competence
- Assists with the accreditation of work based learning
- Assists with the design of work based learning throughout VET
- Develops learners' awareness of transferable skills and their own ability to use them to tackle new tasks
- Provides approaches in VET which encourage autonomy of learning and develop personal effectiveness
- Assists selection by providing a broader base of information for selectors in employment and further and higher education (FHE)

- Assists with workplace analysis to identify the competences required by an individual worker in a specific workplace

- Assists with the diagnosis of individual workers' training needs

Reading

Levy M (1987b)
The Core Skills Project and Work Based Learning.
Sheffield: MSC/FESC

Levy M (1988)
The role of core skills in work based learning.
Transition, October

Levy M and Mathews D (1989)
The MSC Core Skills. FESC Information Bank No 2283

Mathews D (1987a)
The Development of the YTS Core Skills - Derivation and Characterisation. FESC Information Bank No 2262.

EMPLOYER-LED/
EMPLOYMENT-LED

Definition

Employer-led has been used to describe employers' control of the planning, provision and evaluation of training. It is used particularly in 'employer-led standards'.

Employment-led has been used specifically in the context of standards development for National Vocational Qualifications as 'agreed and recognised levels of vocational competence...needed to perform a task, a job or a range of jobs normally in a specified group of occupations, sector of industry or commerce or profession' (AGCS, 1982).

Commentary

In the latest phase (1986-1989) of implementation of the New Training Initiative (NTI) (see Section 1 on Aims of VET) 'employers' have been empowered with the task of deriving training standards (and thereby of goals and frames of reference for learning) as an alternative to those traditionally provided by the examining bodies associated with schools and universities and the vocational examining bodies. 'Employer' is interpreted variously as referring to an individual employer, employers of a particular sector (grouped together in bodies such as the Lead Industry Bodies) or employers 'at large'. In the earliest phase of NTI implementation, the Unified Vocational Preparation programme was described as the only employer-led scheme to date (Dawes, 1982) and was used as the model for YTS. However, despite original policy intentions, the employer-led character of YTS became increasingly compromised by the decreasing number of employer Managing Agents of the programme and the increasing number of Managing Agents who were not employers as such but private training organisations.

Some developers and agencies are concerned that employ*er*-led developments may entail a licence to pursue narrow interests without regard to the effect on the economy, or the needs of the individual learner. This, it is thought, may result in 'narrow vocationalism'. Employ*ment*-led approaches are sometimes preferred for their apparent avoidance of these risks. However, in their turn, employment-led developments run the risk of being too general and of failing to engage employers in taking responsibility for resourcing and providing training for all personnel in their organisations.

The development of Training and Enterprise Councils (TECs) (Department of Employment, 1988; Department of Employment, 1989) is intended to encourage the commitment of employers to training and education, and strengthen the employer-led nature of the new VET system. There should not, however, be an automatic assumption of the willingness or capacity of all employers to engage in such activity. A recent MSC-funded study (Varlaam, 1987) of non-statutory training organisations (NSTOs) set up to investigate "How effective is each NSTO in meeting its industry's needs and how well does the NSTO system as a whole work?" found considerable variation of provision and highlighted some structural difficulties particularly for small sector NSTOs. Another recent research paper (Bennett, McCoshan and Sellgren, 1989) appraises how TECs will work in practice in relation to existing institutions, for example Chambers of Commerce, other local business organisations, Local Education Authorities etc. The paper compares issues for TEC development with experience from the USA and Germany.

EXPERIENTIAL LEARNING

Definition

The characteristics of an experiential approach to learning are 'open-ended learner activities incorporating a range of skill and knowledge demands, the opportunities for developing particular capacities not being clearly pre-determined'. (FEU, 1980)

Experiential learning is a 'a process in which a particular experience is, on reflection, translated into concepts which become in turn guidelines for new experiences'. (Kolb et al, 1979)

Commentary

Experiential learning is not quite the haphazard process it is sometimes taken to be, generally by those outside education and training. It is certainly circumstantial and opportunistic. That is, it is allowed to change according to the circumstances in which the learner finds him/herself. But there can be a choice between one situation and another, a choice taken by the learner alone or in conjunction with whoever is managing or supporting the learning. Experiential learning also requires the active involvement of the learner in a process of *reflection*, whereby the experience gained through particular events can be brought to bear on future activity (see also participative learning).

Experiential learning is one of the modes of learning which can be incorporated or deployed within work based learning (see also assessment of prior learning).

INPUT-DRIVEN

Definition

'Input-driven' refers to the attempted direct control of learning primarily through pre-determination of the content, sequence, timing, events and learning processes of a training programme.

Commentary

Input-driven programmes contrast with those that are outcome-led. They attempt to ensure that a learner will actually achieve the desired learning by prescribing actions which (in good cases) are most likely to be effective. This approach cannot, however, always ensure that the prescribed approaches will suit the individual learners, and they may inhibit trainers, teachers or other organisers of learning from taking actions which will be most effective in the light of changing circumstances.

INTEGRATION

Definition

Within VET, integration usually refers to the co-ordination of learning that takes place even though the learning may be organisationally or geographically separate. It is commonly used for the linking of the content, purpose and assessment of periods at work or during work experience with the learning that takes place in college or other off-the-job locations.

Commentary

There has been a number of centrally funded projects which have contributed to identifying the kinds of linking processes which might occur between employers and the FHE systems. These include the DES-funded PICKUP programme (PICKUP in Progress, a periodical), College Employer Links Project (CELP) (DES, 1986) , and the MSC-funded three-year Responsive College Project (RCP) based at the Further Education Staff College (FESC, 1989a; FESC 1989b). The latter set out to customise the delivery of training packages by involving clients directly in constructing and evaluating their delivery.

Integration is made easier when there is a clear specification of an agreed goal for each part of the provision. It also requires an understanding of how learning in one part of the programme makes demands on, as well as contributing to, each other part. That goal may be expressed in terms, for example, of complete vocational qualifications, individual occupational standards, occupational skills or job competence.

Within work based learning, integration is promoted by the process of *linking learning to the learner's work role*. The purpose of the learning, wherever it takes place, then has relevance to a learner because it coincides with his/her learning needs in work.

Reading

Boffy R and Bailey P (1985)
Learning in YTS : Design and Integration Issues. FESC Information Bank No 2084

Work Based Learning Project Team (1988a)
Making the most of the workplace in NJTS: structuring learning in the workplace in NJTS. FESC Information Bank No 2452

LEARNER-CENTRED LEARNING

Definition

Learner-centred learning is 'education or training which gives priority to learning and the needs of the learner. It recognises that the function of education is learning not instruction; curricula are to be designed around the learner not institutional needs nor traditional subject disciplines'. (Skilbeck, 1985)

Commentary

The distinction between instruction and learning reflects a shift of focus from the teacher/trainer to the worker-learner. Learner-centred approaches recognise that learning may take place in the absence of a teacher and outside a classroom, and seek to promote the autonomy of the learner rather than his/her dependence on formal instruction. They encourage the learner to take some responsibility for his/her own learning. They attempt to find out where the learner is and start from that point. Learner-centred approaches are characterised by content which derives from the learner's needs and interests rather than being imposed by a body of experts.

Learner-centredness is integral to work based learning approaches. In work based learning the learner's needs are generated by his/her work role and both the learner and the employer are involved in recognising those needs.

MODULAR LEARNING PROGRAMMES

Definition
Modular learning programmes comprise programmes of learning organised in modules - a module being defined as 'a measured part (or course) of an extended learning experience leading to the attainment of a specified qualification(s), for which a designated number (and possibly sequence) of modules is required, with the group of designated/required modules known as a programme, a programme of studies, or a modular course structure' (Theodossin, 1986). A feature of modules is that though they may be aggregated within programmes of learning they are relatively discrete and self-contained units of learning.

Commentary
The rationale for modules includes, in terms of accreditation, the opportunity to give recognition for useful or worthwhile achievement or competence in smaller steps than represented by traditional *courses* in which the learner passes or fails the whole of one or more years' work. From the point of view of learning itself, the modular approach may allow different learning approaches to be taken to different sections of a syllabus or to a subset of learning outcomes.

Modules may be created in various ways, from the disaggregation of existing programmes to a complete re-analysis of learning needs. The size of a module may be determined by outcomes, anticipated completion time, or by convenient demarcation of provision.

Further education in Scotland is now organised in modules (SCOTVEC, Annual; Oates, 1986b) while the new National Vocational Qualifications in England, Wales and Northern Ireland are based on modules, known as units of competence. Such modules are outcome-led (outcome modules) and may be contrasted with those which are input-led (input modules).

Many agencies are now seeking to 'modularise' their traditional courses and programmes. However there are difficulties where these are traditional input or syllabus dominated, and they cannot necessarily be readily transformed into 'outcomes' modules to satisfy National Council for Vocational Qualifications (NCVQ) criteria.

OUTCOME-LED

Definition
An outcome-led programme is one in which the control of learning is exercised in response to progress towards achievement of defined outcomes.

Commentary
Outcome-led programmes do not adopt the input-driven approach of pre-determining learning content and processes. They promote access to accreditation by recognising that there are many different routes to obtaining knowledge and skills, and that the choice of 'best route' for an individual may depend on the events and learning which have occurred to date. A key assumption within this model is that learning can be more effective when individual learners are enabled to use learning styles which match their needs.

Work based learning is predominantly outcome-led (in terms of the learner's work role), but may use input-driven provision for instrumental purposes, and for reasons of economy or logistics.

PARTICIPATIVE LEARNING

Definition
Participative learning results from designing learning activities to meet specific learner objectives, and actively involving the learner in that design process. Thus participative learning gives learners a measure of responsibility for their own learning, since learners contribute to making decisions about their own learning rather than merely acquiescing in pre-arranged processes.

Commentary
Participative learning is consistent with a view that learning *to do*, and learning *about*, both derive most readily from learning approaches which include processes of action, feedback and reflection, all of which *actively* involve the learner. This mode of learner involvement in his/her own learning requires a change of role of the tutor/trainer to that of facilitator of learning rather than one of didactic purveyor of knowledge or skills (see Davies, 1977 for a wider discussion of issues associated with this approach).

Participative learning can be applied to all modes of learning activity. Reading a book or a manual can be as much a participative learning activity as carrying out a practical task. It is the decision on the part of the learner to undertake the activity which is the key to its participative nature, but it is essential that the 'facilitator' assists the learner to develop and use a range of strategies for learning. For example, reading a text-book or manual *participatively* can be promoted by the learner using specified strategies, many of which are well articulated in the wide range of books on adult learning (for example see Rowntree, 1970). MSC has funded research work on developing skilled learners which will be of considerable interest to those interested in promoting participative learning (Downs, 1984; Downs, 1987).

It is also important for participative learning that learners get to know their own preferred learning styles and can use these to make their learning activities more effective. Learners can also be encouraged by facilitators to exploit or broaden their current range of learning styles so as to improve the learning strategies which can be brought to bear on specific learning needs (for example see Honey and Mumford, 1986).

Because it links learning to the work role of the learner, work based learning provides a focus for a personal and active interest in the learning undertaken.

Within work based learning, the process of using core analysis encourages the use of more participative approaches to learning in the workplace by providing a language and a framework within which:

- Supervisors/adult workers can discuss and convey their experienced-worker skills to trainees/less experienced workers
- Off-job providers can gain insight into, and help make provision for, the learning needs of workers in their work roles, whether these needs are for additional skills, knowledge or experience

Core analysis can also be used by students undertaking work experience in schools, colleges and universities. In learning how to use core skills in analysis of their own work activities, learners develop an awareness of the kinds of skills required, how the work activities are constructed, what skills they themselves possess and how they are used in different contexts.

Reading
Boffy R, Bailey P and Valentine R (1985)
Core skills and Participative Learning. FESC Information Bank No. 2088

Levy M (1987b)
The core skills project and work based learning. MSC/FESC

PREVOCATIONAL EDUCATION/ VOCATIONAL PREPARATION

Definition

Prevocational education refers primarily to educational provision for young people prior to their entry into the labour market or into vocational education. Prevocational education aims to provide access to the world of work by means which include work experience, but in the context of sampling or 'tasting' a range of jobs for purposes of informing choice and extending general education.

Vocational preparation has been defined as 'the supportive process of education/training, relevant to the aspirations and potential of individuals, necessary to accompany vocational and/or occupational change' (FEU, 1987a). The term has tended to refer to training for young people, but the concept is appropriate to all age groups.

Commentary

The two terms have similar aims. Prevocational education was originally intended only for the 'lower achievers', characterised as 'the bottom 40%' in the education system. Its aims have been characterised in the Certificate of Pre-Vocational Education (CPVE) as:

- Forming vocational interests by planned tasting across a broad area, or allowing the more concentrated exploration of possibilities within a narrower sector
- Developing competences applicable to jobs and adult life
- Extending general education

(JBPVE, 1984)

The aims of vocational preparation within Unified Vocational Preparation (UVP) were those of assisting young people to:

- Assess their potential and think realistically about jobs and careers
- Develop the basic skills which will be needed in adult life generally
- Understand their society and how it works

- Strengthen the foundation of skill and knowledge on which further education and training can be built

A 1976 Government Statement - Unified Vocational Preparation: a Pilot Approach, reported in Jamieson-Wray et al, 1980.

In Germany, prevocational education includes a curriculum area called Work Theory (Arbeitslehre) which can be introduced into schools. This is divided into three sectors dealing with:

- General orientation on industrial and working skills

- Development of working habits (this is, in effect, attitude to work)

- Choosing an occupation

The teaching of Work Theory is intended to:

- Impart insights, knowledge and abilities in the technical, economic and socio-political sectors which today constitute essential elements in the basic education of every citizen

- To provide new impulses for cooperation

- To provide assistance in choosing an occupational area and preparation for choosing an occupation, but not to provide vocational training itself

(Kassell, 1979)

In the USA in the 1970s, some interesting work on prevocational education was carried out, intended to be implemented from kindergarten through to high school. Its purpose was to design an occupational clustering system to inform, guide and prepare students for the world of work.

The system was to provide a school-based model for career education known as the Comprehensive Career Education Model (CCEM) in an 'attempt to revise the public school programme to provide better answers to the vocational needs and aims of all students, rather than to only a part of the student body...the educational program would integrate occupational awareness and choice into the entire curriculum. As a result of this program, students are expected to develop in four ways:

- self awareness and understanding of their interests and abilities in relation to possible careers
- attitudes and understanding regarding the significance of work in social, personal and economic terms
- understanding of the pervasive and intimate relationship holding between work roles and other life roles and styles
- skills and capabilities permitting, at the least, occupational entry

(Taylor, Montague, Michaels, 1972)

Prevocational education essentially addresses the needs of young people prior to entry into employment or specific vocational training. Prevocational education takes full-time education as the primary context for learning (while recognising the usefulness of work experience) and therefore cannot be extended to most adult workers.

Vocational preparation, however, should be seen as relevant to adult workers as well as young people and applicable to learners in or out of paid employment.

STRUCTURING LEARNING IN THE WORKPLACE

Definition
Structuring learning in the workplace has two aspects. First, the raising in value and importance (to the employer and the learner) of the opportunities for learning that can take place in the context of work. This includes making more explicit the kinds of skills which may be best learned in the workplace or which may *only* be learned there. Second, it requires the use of strategies and a structure within which effective use of the workplace for learning can be developed.

Commentary
Work based learning uses the work place as a learning resource. If employers are to support training and workers are to become motivated to undertake it, this requires that the outcomes of the learning activity will be used by the employing organisation and are of value to the learner. A principle of work based learning is therefore the enhancement of learning opportunities at the workplace. This requires strategies for structuring learning in the workplace which do not interfere with

workplace production or turn the workplace into a classroom in the traditional sense. Included in such strategies are work based projects and the construction and use of individual development plans (IDPs) which encourage opportunities for reflection on workplace performance. The work based learning project team also has a listing of different strategies to consider when using the workplace for learning (see Work Based Learning Project Team, 1988a).

Reading

Oates T (1986a)
Supervisor snapshots: descriptions of workplace supervisors and their roles in work based learning. FESC Information Bank No 2263

Work Based Learning Project Team (1988a)
Making the most of the workplace in NJTS: structuring learning in the workplace in NJTS. FESC Information Bank No 2452

Levy M (1987a)
The Core Skills Project and Work Based Learning.
Sheffield: MSC/FESC

VOCATIONAL EDUCATION AND TRAINING (VET)

Definition

VET comprises 'education for work, but more than mere training since it aims to prepare for all the aspects of a social, economic and technological environment rather than just passing on task-specific skills'. (Skilbeck, 1985)

VET comprises 'learning activities which contribute to successful economic performance'. (Hayes, 1984)

Commentary

Vocational education and training refers to both the task-specific practical instruction and the more broad-based and transferable (see skill transfer) learning required for continuing effectiveness in the work role. In one of the first documents to use the term 'vocational education and training' (VET) in this country Hayes (op cit) noted that the words vocational education and training are not commonly used in the UK. He added that many aspects of education which are not called *vocational* in this country because they are not *technical*, are seen in other countries as equipping people for employment and mobility, and are therefore called 'vocational'. Use of the term VET in referring to learning opportunities in this country reflects a concern to promote and develop this broader notion of 'vocational'.

In VET much has been made of the distinction between education and training. This ignores the underlying similarity between their traditional forms in that they have both been dominated by input-driven models of learning rather than outcome-led models.

Representing a departure from these traditional forms, the new work based learning model highlighted throughout this *Guide* is not only outcome-led, but is also work-led. Its claim to provide a new model for VET is based on this orientation and on the *definition* of work based learning, the main characteristic of which is *linking learning to the work role*. This model specifies a relationship between three components of learning (structuring learning in the workplace, on-job learning, off-job learning) giving a role to learning in the workplace which is much more constructive than traditional training approaches. The latter have tended to use the workplace mainly for *additional* practice or experience rather than as a *primary location* for learning skills and/or knowledge.

1988 and 1989 proved to be a period of intensive debate at policy level regarding the future basis of VET for 14-19s (Baker, 1989; CBI, 1989; Cassels, 1989). Issues include the kinds and levels of skills attained, the status of learners, the roles of employers, funding to ensure greater participation in VET, use of action plans and records of achievement, strengthening careers guidance, increasing the numbers of 16-19s getting higher vocational qualifications in addition to increasing those going into higher education. This debate is taking place in the context of skills shortages, fall in the number of 16-19s, need to compete in the economic world. The debate of the late 1980's implies a move towards a planned programme of change which will affect the whole of VET and have an impact on higher education.

VOCATIONALISM

Definition

'Vocationalism' refers to a concern with a job or occupation within a programme of learning.

Commentary

The VET field in Britain over the last decade has been subject to dramatic changes and initiatives, and has also been the arena for fierce debate over the nature of these changes. Changes in VET have been characterized as the 'Janus-headed revolution in education and training' (Ranson et al, 1986). The two 'faces' of this revolution are the 'new education' which is shaped by personal development needs of the student and seeks to develop further the principles which lay behind the introduction of comprehensive schools, and the 'new vocationalism' which seeks to replace an assumed narrow emphasis on academic learning with narrow emphasis upon practical and vocational learning. Vocationalism or 'narrow vocationalism' from this perspective is a pejorative expression, attributing to training the aim of producing human cogs to fit the industrial wheel rather than being concerned with personal development.

Elsewhere however (Dale, 1985), the new vocationalism has been defined as the drawing together of schools and universities, further education, industrial training and the careers service in a reappraisal of the traditional divide between education and training. Within this concept training can no longer be devoted to narrow functions, but has to address, for example, personal effectiveness and changes in jobs, including those associated with new technology - as much to do with 'occupational versatility and personal adjustment as anything that would formerly have been recognised as skill training' (CBI, 1987).

In this spirit, work based learning and core skills use the work place, on-job and off-job learning and training to develop skills which are common and essential to the individual across a wide range of jobs and work roles.

WORK BASED LEARNING

Definition

Levy (Levy, 1987b) defines work based learning as:

- Linking learning to the work role

and, in addition, having three inter-related components, each of which provides an essential contribution to the learning:

(i) Structuring learning in the workplace

(ii) Providing appropriate on-job training/learning opportunities

(iii) Identifying and providing relevant off-job learning opportunities

The *purpose* of work based learning, with its main characteristic of *linking learning to the work role*, is to:

- Assist workers and employers in responding to labour markets in which change is endemic

- Provide a basis for the provision of continuous learning opportunities which such change implies and which was highlighted by the New Training Initiative (NTI)

Commentary

The above is the only full definition of work based learning. It indicates that work based learning is not limited to learning that occurs in the workplace. It integrates three components from within and outside the workplace, by linking the learning in any context to the work role of the learner.

Work based learning promotes the integration of the three components, and provides a basis for alternance. Work based learning is learner-centred. By linking learning to the work role *motivation* of both the employer and the employee to support such learning is encouraged (see employer-led). Note also that *linking learning to the work role* requires tools for analysing work activities in order to determine learning/training needs (see core skills, core analysis, core skills framework,). See Levy, 1988 for a discussion of the role of core skills in work based learning.

In the work based learning model off-job providers are encouraged to consider learners as workers with learning needs deriving from their role, and employers encouraged to consider the continuing learning of workers as an integral part of their work role. Hence the introduction of the new term 'worker-learner'.

Work based learning methods and approaches can contribute to the aims expressed in the White Paper Employment for the 1990's: '...we need to recognise the commercial necessity of reskilling people, and the central importance of linking training plans with business plans...' (Department of Employment, 1988).

Work based learning is a new work-driven (as opposed to education-driven) model for the delivery of VET, having relevance also to vocational preparation and prevocational education. It promotes broad-based learning and opposes narrow vocationalism. It is not, however, a specification of learning methods. Within work based learning a variety of learning approaches may be used, as appropriate. The principles involved and an idealised model for the learning process to be used with employed 16-19s were well articulated in Experience, Reflection, Learning (FEU, 1978) written to support UVP, the first Government-funded work based learning scheme.

The new model does not replace all existing VET models. Its processes and principles will however be applicable to those models where work/practical experience is a feature of the learning programme eg CNAA sandwich courses in Higher Education, social work/nurse training, school based practical activity, TVEI, project/assignment work in general. The model can also contribute very positively to the assessment of prior learning.

Work based learning is *not* intended to provide for *all* the learning needs of adults post-16. Provision already exists for selected needs. Work based learning provides a model where it is of advantage to link learning to the learner's work role. Work based learning is different from traditional work-related learning and work experience.

Reading
Levy M (1987b)
The Core Skills Project and Work Based Learning.
Sheffield: MSC/FESC

WORK BASED PROJECTS

Definition
Work based projects (WBPs) are individualised learning materials which link learning to the work role of the worker-learner. The starting point for a WBP will be the learning needs generated for a worker-learner by specific work activities he/she is expected to undertake. The outcomes of WBPs can contribute to credit in the units which make up National Vocational Qualifications (NVQs) or to SCOTVEC modules.

Commentary
Work based projects are based on the principle that worker-learners' motivation to learn can be increased by involving them in learning activities which are immediately relevant and purposeful both to them and their employers.

Work based projects can be written for all ages and ability levels and all kinds of work activities. They can include: investigations of company operations; workforce and/or customer behaviour; the market role or social importance of company products or processes; specific manufacturing or process operations; the introduction of new technology.

Work based projects make use of employer's premises, equipment, and processes and the experienced workplace staff, in addition to trainers and tutors from outside the immediate workplace.

The design of a work based project is based on negotiations between the employer, workplace supervisor/manager, off-job tutor and the learner. The WBP design process must take into account the needs of the employer's organisation, the needs of the worker-learner within it, and the overall /learning training resources available. These resources will include a mix of the three components of work based learning: structuring learning in the workplace, on-job training/learning, off-job learning.

WBPs should provide a framework for: *worker-learners* to review their activities and achievements in undertaking the WBP activity; *supervisor/managers* to review the WBP activities with the worker-learner; the *assessment of competence* by bringing together reviewing and assessment, and basing assessment of competence upon worker-learners' actual performance in workplace tasks.

The skills which work based projects are designed to develop are those which lead to occupational competence. Competence in the workplace is clearly more than the ability to carry out everyday tasks to specified standards. It is knowing what to do when tasks/work activities do not go as expected, or when new tasks are introduced. It involves using initiative, getting on with colleagues, and understanding how one's actions affect others. The design processes for work based projects are such that they highlight these skills.

A seminal text providing guidance on designing work based projects for adults, with examples, is 'Achieving Quality in Employment Training: designing and using work based projects', see below. This provides detailed guidance on constructing, using and adapting work based projects. Within this are key features and functions of work based projects:

- The structure of the WBPs
- The roles of various personnel and the learner in designing and implementing work based projects
- Stages in designing and using work based projects
- The work based project in action
- Reviewing progress, assessing and recording achievement
- Modifying, adapting and updating work based projects

Reading
Work Based Learning Project Team (1989a)
Achieving Quality in Employment Training: designing and using work based projects. FESC Information Bank No 2464

Ann Evans and Bethan Wareing (1985)
An Introduction to Work Based Projects. FESC Publications

Core Skills Project Teams (1984)
Core Exemplar Work Based Projects (designed for 16-17s in YTS). Free catalogue of 100 WBPs available.
FESC Publications

Ann Evans, Moira Turner and Janet Toye (1985)
Computer Work Based Projects. FESC Publications

Roy Boffy and Pauline Bailey (1985)
Work Based Projects in YTS: YTS Manual. MSC Publications

WORK EXPERIENCE

Definition

Work experience comprises the placement of a learner, in one or more workplaces, enabling work activities to be undertaken for the purpose of acquiring a range of skills and/or an awareness and understanding of working environments and work systems.

Work experience in the context of social and life skills for 16-19s...'would include any activity in which the young people have to work in an inter-dependent manner with others in the performance of a set task under realistic constraints of time, and quality'. (FEU, 1980)

Commentary

Learning programmes with a work experience component may use that component in different ways. Some may attempt to specify its outcomes quite tightly; others may not. The work experience may be designed for acquisition of skills which cannot satisfactorily be acquired elsewhere. It may be used for the application of skills previously rehearsed only in protected or simulated environments. It may be used for the learner to get the feel of a certain type of workplace. Work experience may be used for a variety of programmes within VET or even outside VET. A very good exposition of the ways in which work experience can be used for young people (16-18s) was provided by an MSC task group (MSC, 1978). Work based learning approaches and tools provide strategies for integrating the work experience with other provision where the learning and outcomes of work experience is directed to the future work role of the learner.

Whatever model is used for the integration of new work experience into a learner's existing experience and knowledge, it is essential that this should include initial planning and post hoc reviewing processes. (see individual development plans and formative assessment)

Reading

Work Based Learning Project Team (1988a)
Making the most of the workplace in NJTS: structuring learning in the workplace in NJTS. FESC Information Bank No 2452

Roy Boffy and Pauline Bailey (1985)
Work Based Projects in YTS: YTS Manual. MSC Publications

WORKPLACE LEARNING

Definition

'Workplace learning' is used to describe any learning which takes place in the workplace. Within work based learning it is more useful to use the term to refer to *structured* learning in the workplace which can exist within work experience and alongside on-job training.

Commentary

The term is used to give proper recognition to a good deal of learning which occurs on an ad hoc basis while people are carrying out their jobs. Traditionally it has been compared unfavourably to formal, planned learning. Structuring learning in the workplace is a special case of workplace learning, as is on-job training/learning. Together these form two of the three components of work based learning.

Reading

Oates T (1986a)
Supervisor snapshots: descriptions of workplace supervisors and their roles in work based learning. FESC Information Bank No 2263

Work Based Learning Project Team (1988a)
Making the most of the workplace in NJTS: structuring learning in the workplace in NJTS. FESC Information Bank No 2452

WORK-RELATED LEARNING

Definition

In the context of VET, work-related learning is learning judged to have utility in the world of work.

'...the concept of work-related is as dependent on a student's motives in pursuing a course as it is on the nature of the course itself.' (Skilbeck, 1985)

Commentary

Work-related learning is a less precise sphere of learning than work based learning, which is linked to the work role of the learner. The 'relatedness' may be of different types and different origins.

The nature of the relation can vary dramatically from programme to programme or course to course. For one agency it can mean programme content giving learners skills which they might use in some way at some time in the future in work. To another agency it can mean very instrumental training in a very limited task.

Additionally an academic course might be considered work-related if it provides a qualification needed for entry to a particular occupation, regardless of how closely the course content represented competence required in a job.

This wide variation in practice means that the *nature* of work relatedness should perhaps be the subject of some investigative research work; the drive for economic value from investment in VET may lead to very narrow and crude criteria being used as a basis for judgement of 'relatedness'.

WORK ROLE

Definition
'Work role' comprises the conditions, responsibilities, problems and opportunities which an individual worker-learner faces in a specific workplace. (Work Based Learning Project Team, 1988c)

Commentary
A job description offers a general outline of the duties and responsibilities involved in a specific job. However, the work role and learning needs of different workers undertaking the same job can vary, depending on what skills they bring to the job and how they undertake the job.

In particular, different worker-learners discharging the same basic job can use quite different approaches to achieving the same outcome. For example, managers in the same workplace can arrange the tasks they have to do in the day quite differently and use different management styles and strategies, yet still meet the same deadlines with quality outputs. Staff in caring professions in the same workplace can have quite different styles of relationship with their clients, and yet maintain very good relationships and recognise and provide for the needs of their clients equally effectively. Skilled craftsmen can have quite different techniques for producing very similar items; techniques are often adapted by different craftsmen to fit their individual working routines or to ease the physical demands of particular tasks. Two workers in the same 'job' may exercise very different work roles.

The work role is not confined to the individual tasks of the job, but has to do with the whole of job competence. Because work roles are always related to the individual, training for them will require attention to an individual's learning needs (see Honey and Mumford, 1986). These may be met through a variety of routes: the route - open learning, one-to-one training, course provision etc should be deliberately matched to these needs.

Work based learning requires learning to be linked to the work role. This has two major consequences for learners. It results in learner-centred learning processes, and it helps the learner define the relevance of the learning to him/herself.

Reading
Mansfield B and Mathews D (1985)
Job competence: a description for use in vocational education and training. FESC Publications

SECTION 3 Accreditation: approaches to assessment and certification, including standards and their use

One of the major aspects of the developments in VET is a radical change in ways of assessing and certificating achievement. Not only are modular structures (see modules) being introduced, but there is an emphasis on generating standards-based qualifications.

These standards are new in form, and represent a shift of balance towards the recognition of *performance* in occupational activity and away from the emphasis on *theory* as the subject of assessment and certification.

Much of the new technical work associated with the above is supported by detailed guidance notes from the national policy bodies, Manpower Services Commission now known as the Training Agency, and the National Council for Vocational Qualifications (see Appendix 1).

Accreditation in this section refers to assessment and certification. However the section also includes examination of the *interpretation* of assessment information; first, by those assessors who choose what evidence is worthy of recording on a certificate, and second, by those selectors in employment, further and higher education who receive certificates and make predictions based on the information therein.

Accreditation terms discussed in this section are:

Term	page
Accreditation	75
Accreditation of prior achievement	76
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Assessment of prior (or experiential) learning	76
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ACCREDITATION

Definition

Accreditation is the process of formal and public recognition of an individual's skills, knowledge, experience or competence.

'The recognition and acceptance of the *academic standards* of an educational establishment by an outside accrediting agency, association or body such as an examination board, a professional and qualifying body, or a more senior educational establishment (for example, accreditation by a *university* or a *school* in its *accrediting area*, or by an *accrediting body* or agency of a *professional school* or other *higher education* institution)'. (Page and Thomas, 1979)

'(Accreditation) ... refers to the National Council's activities in accepting awards as meeting the criteria specified for NVQs.' (NCVQ, 1988a)

Commentary

Accreditation can be applied to the process of approving an organisation's capacity to uphold specific standards and, as in the third definition above, to the process of approving awards.

Contrasting with these uses, the first definition shows how the term accreditation has, in the last decade, gained currency as a term which is useful for describing both the assessment and certification arrangements for particular programmes and awards. This usage emphasises how overall recognition of someone's achievements is affected not only by the particular types/modes of assessment which are adopted, but also by the types of recording and certification used.

It is also essential to note that a third process is embedded in accreditation and often passes unrecognised; this is the process of interpretation. This refers to assessors' decision-making processes regarding what evidence should be 'caught' in assessments and what information recorded in certification. Interpretation also occurs where selectors in employment, further and higher education make predictions based on the information contained in certificates.

Recognition of skills or competence, is not merely a passive or dispassionate acknowledgement that they have been attained. It implies an evaluative judgement about their worth - crudely, a granting of market value. The process of consideration of this market value often affects what a tutor, trainer or supervisor *actually records* on a certificate (see also assessment map). Similarly *interpretation* of certificates or any kind of statement of achievement *by the receiving party* is as much a part of accreditation as the processes which go into creating those statements.

Reading

Mathews D (1985)
Issues of Accreditation of Work Based Learning. FESC Information Bank No 2094

Mathews D (1986b)
YTS Core Skills and the Accreditation of Work Based Learning. FESC Information Bank No 2220

Mathews D (1987b)
Accreditation of Work Based Learning - A New Approach for Education, Training and Employment. FESC Information Bank No 2281

ASSESSMENT OF PRIOR (OR EXPERIENTIAL) LEARNING/ ACCREDITATION OF PRIOR ACHIEVEMENT

Definition

For assessment/accreditation purposes experiential learning has been defined as '...the knowledge and skills acquired through life and work experience and study which are not formally attested through any educational or professional certification. It can include instruction-based learning, provided by any institution, which has not been examined in any of the public examination systems. It can include those undervalued elements of formally provided education which are not encompassed by current examinations...' (FEU, 1983) and as '...learning through experience rather than through study or formal instruction...' (RVQ, 1986).

In defining accreditation of prior achievement, a paper from NCVQ (NCVQ, 1989b) states '...Evidence of past achievements, if properly authenticated, may be equally or more valid than evidence from a test or examination...Prior achievements are simply those which have occurred in the past...If a candidate has practised the required competences, in work or outside, and can produce evidence of his or her competence from past performance, this could provide an alternative source of evidence that could be taken into account for the award of a qualification.'

Commentary

The terms 'prior learning' and 'experiential learning' have been used interchangeably. Initial development work in this area focussed predominantly on creating alternative access routes to higher education (HE). 'Assessment of prior learning' (APL) gave an opportunity for those candidates without the required battery of formal qualifications to gain entry to a course. This was often referred to as 'exceptional entry' (FEU, 1983). Attention was given to the type of processes which institutions should use for assessing candidates presenting themselves under the 'exceptional entry' category and to offering advice to learners on how to present evidence of prior achievement, often in the form of a 'portfolio'. The need for 'special entry' procedures for HE under Assessment of Prior Experiential Learning (APEL) schemes and CNAA Credit Accumulation and Transfer Schemes (CATS) is further discussed in Fulton and Ellwood, 1989.

Overall policy and methods for assessing prior/experiential learning have expanded from this limited context of entry to specific courses so that in 1987 the emerging perspective became '...the assessment of experiential learning is about more than a new approach to thinking about access. It concerns updating and retraining. It relates to progression and competences. By laying out what people know, and can do, it displays the foundations for building further competence and study. The assessment of experiential learning, therefore, is based on the practical implications of the development of people as learners...' (FEU, 1987b) and see also (LET, 1987), (CNAA, 1988), (NCVQ. 1988a).

With its development of credit accumulation and credit transfer arrangements NCVQ has refined the terminology in relation to 'APL' to describe its own processes within the NVQ system. '...the term "accreditation of prior learning" may also cause confusion as within NVQs, a clear distinction is made between "learning " as a process, and the output of such learning which is described as "achievement". Accreditation is based upon evidence of achievement not learning...' (NCVQ, 1989b).

Problems and issues which persist include: methods for the collection and presentation of evidence; authentication/verification of evidence; and the extent to which achievements acquired at some point in the past - possibly some considerable time before - have 'decayed' or fallen out of currency because of changes in work systems/practices/technology.

ASSESSMENT

Definition

The process of making a judgement about an individual in regard to one or more attributes, and based on information about performance in one or more activities.

'An assessment is taken to be some form of appraisal of an individual's characteristics (or a particular

characteristic such as attainment in mathematics).'
(Nuttall, 1986)

Commentary

Assessment may be used for formative, summative or diagnostic purposes. Formative assessment is a judgement of a learner's progress, and provides feedback for the learner and for the manager or facilitator of learning. Summative assessment is the judgement of the learner's achievement at least for the whole of a learning programme or some component of it for the purpose of reporting to others. Diagnostic assessment is the process of identifying learning difficulties or other individual characteristics for the specific purpose of prescribing action suited to the individual learner.

In all cases assessment includes two processes, though these may not always be distinct - the measurement of performance and the judgement of competence against the attribute being measured (see Wood and Power, 1984). In the case of both formative and diagnostic assessment, the criteria for both the measurement of performance and the judgement of competence may be internal to the organisation concerned. Within VET, for summative assessment leading to certification, NCVQ and government policy is encouraging externally-set (set by industry) criteria, representing specified standards of competence.

Within YTS and Employment Training, and in National Vocational Qualifications, assessment is now incorporating evidence of performance in naturally occurring activities in the workplace, often through observation by workplace supervisors (see Oates, 1986a; Wolf, 1986; Wood R et al, 1988). Other sources of assessment evidence include written examinations, skills tests, oral questioning and competency tests. The latter are reconstructions of working practice, tailored to cover sets of competences which are judged to be key to competence in the job as a whole.

Some of the issues associated with effective *management* of assessment evidence/information, whether it is collected by supervisors, learners themselves, or off-job providers are discussed under the heading, the assessment map.

Reading

Work Based Learning Project Team (1988b)
Making the most of the workplace in NJTS: Assessment and certification in NJTS. FESC Information Bank No 2453

ASSESSMENT MAP

Definition

An Assessment Map is a diagrammatic representation of the generation and flow of information in the assessment process. It can be used as a management tool for refining assessment practices in a programme or institution.

Commentary

The assessment map is a means of investigating assessment processes, in particular to look at how assessment information or evidence is brought together from different sources for making judgements, and for identifying instances where information may be lost, that is, not used or not passed on. An assessment map can be used in respect of a learning programme for an individual or simply for examining the way in which his/her achievements are brought together in formal or informal certification or accreditation processes.

Assessment maps are particularly important when learning takes place in a number of different locations or modes, and where numbers of trainers, teachers, supervisors are involved, for example in nurse and social work training, sandwich courses in higher education, teacher training, and work experience provision organised by schools.

Reading

Work Based Learning Project Team(1988d)
Making the most of the workplace in NJTS: The Assessment Map in NJTS. FESC Information Bank No 2456

ASSESSMENT OF WORK BASED LEARNING

Definition

Assessment of work based learning is the assessment process which draws on and uses assessment information/ evidence on performance from all *three* components of work based learning - structuring learning in the workplace, on-job training/learning and off-job learning.

Commentary

Assessment of work based learning does not refer only to assessment in the workplace, which is sometimes misleadingly called 'work-based assessment'. A more correct phrase for this would be workplace assessment.

Assessment of work based learning adheres to the principles of assessment in general regarding reliability, validity, and utility. Its particular characteristic is that it can draw on evidence of performance obtained from any of the three components of work based learning and use that evidence to make statements of achievement or competence.

Traditionally, because of technical difficulties, assessment has tended to deal with those things that are easy to assess, rather than those things it is important/ useful to have information about. Hence the emphasis on theory/knowledge and skill tests in many vocational qualifications. Current technical work on assessment of performance supported by NCVQ and the Training Agency is intended to change this emphasis (see also performance-based, summative, and diagnostic assessment entries).

CERTIFICATION

Definition
Certification is the process of creating a public statement of achievement, based on evidence obtained in the course of assessment.

Commentary
The purpose of a certificate is to communicate information to others for purposes such as selection, guidance, credit transfer, and to the learner as confirmation of achievement - certification often being essential to a sense of reward or self-esteem. The process of certification involves choice of what information is included and how it is presented. The communication of information provided by current certificates is often poor. Much information is disregarded, and the information included may be irrelevant and/or clouded by extraneous information (see also assessment map).

There is an additional issue of how much information on individual applicants selectors in further and higher education (FHE) and employment can handle within current practices. Traditionally, lack of time has been one reason for the emphasis in the past on specifying for applicants a number of O levels, A levels, or the class and subject of an academic degree. With the move to Records of Achievement in schools and the use of the National Record of Vocational Achievements, both of which provide a much wider range and quantity of information, it will be important to investigate ways of using such information effectively, for example by the use of decision support systems. Simply reducing valuable information about an individual to a short statement with or without a grade will not support either the learners', the employers', nor FHE interests (see also selection in VET).

Many forms of certification are endorsed or validated by examining or validating bodies, though the validation is generally not clearly specified in terms of the rigour or worth of the information included in the certificate. Other certification is less formal, and may take the form of self-certification, as in the case of a CV (curriculum vitae). In the latter case the individual usually selects (or is helped to select) particular information from his/her personal information bank to match the demands of the selector or selection process (often interpreted from a job description, advert, or guidelines on entry to FHE etc).

CONTINUOUS AND TERMINAL/FINAL ASSESSMENT

Definition

Continuous assessment is the accumulation of assessment information and/or updating of judgements of the competence of the individual (see assessment) throughout the whole of, or a large part of, a learning programme.

Terminal/final assessment is a judgement based on evidence obtained at the end of the programme.

Commentary

Continuous assessment may be used for formative or summative purposes (as in continuous, summative assessment) and occasionally for diagnostic purposes.

Formative assessment processes track the learner's progress and provide feedback to him/her. They enable the learner to reflect on his/her performance and progress, and enables the learner and those managing the learning programme to optimise learning processes.

Summative assessment is the process of generating information for the final record of performance which the learner will take from the learning/assessment programme.

Although previously associated with end-testing and formal tests, summative assessment is increasingly being seen as that moment when formative assessment decisions become final. That is, the information gained during formative assessment may indicate that successful performance has been attained on sufficient occasions to warrant formally recording competence in an element of competence.

Terminal/final assessment is designed as summative assessment, and indeed had traditionally been the *only* form of summative assessment allowed. Continuous and terminal assessment may be combined so that both contribute to the overall judgement of competence and final certification.

CREDIT ACCUMULATION

Definition

Processes which enable learners to acquire portions of qualifications over time from a variety of different programmes of learning/learning opportunities. These programmes need not be continuous, nor include formal attendance at an institution. For example, under credit accumulation arrangements, successful demonstration of completion of separate, individual module outcomes can qualify learners for a full award.

Commentary

The purpose of the NCVQ credit accumulation facility (NCVQ, 1988b; NCVQ, 1988d) is to ensure that due recognition may be given to verified competence. In the case of NVQs this facility is intended to be independent of when and where competence is gained. Credits may be gained in an independent or ad hoc fashion and over different periods of time according to the individual's needs, opportunities and preferences. Agreement is required among examining, validating and training bodies on the range of ways in which they will allow assessment, recording and verification of competence within credit accumulation arrangements.

The National Record of Vocational Achievement (NROVA), issued by NCVQ, is designed to facilitate credit accumulation (NCVQ, 1988c). Policy issues still to be considered will probably have to include some reference to possible limits on the total time period over which credits are collected and the cross-sectoral currency of specific credits.

CREDIT TRANSFER

Definition

Credit transfer is the acceptance of an award or credit obtained for one purpose, or in one organisation/institution, as credit towards another award or towards the same award in another organisation/institution.

Commentary

Credit transfer, first developed on a significant scale in the USA, has its most formal expression in education programmes. It is also to be found in industrial training and similar systems such as apprenticeships, where there are employer-union agreements on the achievement of status. Credit transfer may result in, for example, exemption from parts of a learning programme to which a learner has transferred. Credit transfer arrangements can often allow *part* credit towards an award to be given for earlier awards.

Assessment of prior learning (APL) opportunities and programmes are of considerable importance since they enable an individual to gain credit for previous, often informal, learning.

CRITERION-REFERENCED/ NORM-REFERENCED ASSESSMENT

Definition

Criterion-referenced assessment gives information on whether the learner's performance meets specified standards.

Norm-referenced assessment gives information on the learner's achievement in relation to others in a defined group.

Commentary

In criterion-referenced assessment, the threshold of satisfactory performance or competence is external to, and independent of, the body of learners. All or none of them may perform well against the threshold criterion.

For norm-referenced assessment any threshold of satisfactory performance is determined by the proportions it is deemed appropriate should pass or fail. The main purpose of such assessments is to differentiate within the population of those assessed.

For many, the inherent characteristic of norm-referenced assessment - that there will always be a fixed proportion of learners *below* the norm - is often viewed as being the guarantee of 'standards'. There is sometimes concern that standards are more vulnerable, that is, likely to deteriorate, in criterion-referenced assessment.

Criterion-referencing can derive from norm-referencing, as in *norm-set criterion referencing*. In this, norm-referenced assessments are conducted, and criteria are derived from the results, corresponding with the normative judgement as to what constitutes satisfactory performance. That is, you use the spread of assessments to decide in relation to the ability of the learners at what level to pitch the standards. In future assessments it is the criteria which are applied rather than a decision based on the distribution of assessments. The advantage of this process over simple norm-referencing is that it allows improvement in the performance of successive cohorts to be recognised.

DIAGNOSTIC ASSESSMENT

Definition

Diagnostic assessment is the set of processes designed to identify the nature, cause and extent of any specific weaknesses or strengths in an individual learner's performance.

Commentary

Diagnostic *testing* for the purpose of diagnostic assessment typically uses special exercises. It can be thought of as a special category of formative assessment in that, like all formative *assessment, it generates* information on the state of the learner, which can then be used to manage the learner's future learning programme.

Diagnostic assessment is most often associated with remedial instruction in, for example, basic skills training and literacy and numeracy provision. It may also detect motivational problems, difficulty in *applying* skills and hidden disabilities such as poor eyesight or hearing where, again, direct remedial action is appropriate. Some problems are more difficult to identify and are not often taken into account. These include various types of cultural inhibitors - ethnicity, gender, religion, age.

Diagnostic assessment may also lead to more gradual adjustments of the learner's programme - in terms of pace of learning, degree of support, intended outcomes, etc.

Core analysis can play a major role in diagnostic assessment by illuminating skills which experienced workers *take for granted* or have not previously recognised; for example, the planning and problem-solving skills required in otherwise 'practical' activities. Without core analysis or some similar analysis process, trainers are often unlikely to realise what the learner's problem is.

ELEMENTS OF COMPETENCE

Definition

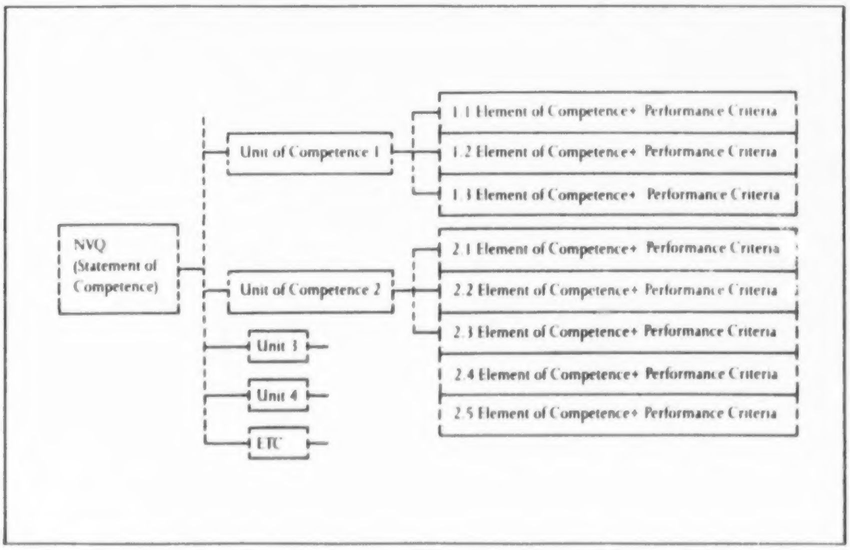
An element of competence is 'a description of something which a person who works in a given occupational area should be able to do. It is a description of an action, behaviour or outcome which the person should be able to demonstrate'. (MSC, 1988b)

An element of competence should be described by means of a short sentence with three parts:

- A verb specifying an activity
- The object of the activity
- The conditions of the activity

Each element of competence is accompanied by a number of performance criteria. These are the reference points for assessment procedures. Drawn up by Lead Industry Bodies, they specify the level of achievement which will be acceptable in employment. (Extracted from MSC, 1988b)

Commentary
Elements of competence with their performance criteria are the basic components of units of competence, and, within the specified *range* of application, represent the standards within a unit (see also range statement). They are derived through the process of functional analysis. Assessment processes are directed towards elements of competence. Units of competence are achieved through the achievement of the individual elements they contain. The main body of guidance on this topic appears in the Training Agency's and MSC's guidance notes in the series *Development of assessable standards for national certification* (see Appendix 1).


NVQ (Statement of Competence)
Unit of Competence 1
1.1 Element of Competence+ Performance Criteria
1.2 Element of Competence+ Performance Criteria
1.3 Element of Competence+ Performance Criteria
Unit of Competence 2
2.1 Element of Competence+ Performance Criteria
2.2 Element of Competence+ Performance Criteria
2.3 Element of Competence+ Performance Criteria
2.4 Element of Competence+ Performance Criteria
2.5 Element of Competence+ Performance Criteria
Unit 3
Unit 4
ETC

The crucial feature of elements of competence is that they are intended to be assessed primarily through performance-based assessment with a priority placed on workplace assessment.

The performance criteria by which the elements of competence are judged contain a critical outcome and an evaluative statement. They are phrased in a more *general* way than the criteria which would be applied to a specific action (see MSC, 1988b for 'acceptable' and 'don't use' examples). It should be remembered that the performance criteria are intended to apply to the collected evidence as part of making a judgement of competence. More specific criteria would need to be applied to the *gathering* of that evidence.

Some examples of the development of units of competence, elements of competence and performance criteria, with detailed explanation are given in Training Agency, 1988/89 No 3, for example on page 32 Example 1.

Unit: Receive, check and store bulk raw materials delivered from suppliers
Elements:
- receive and check bulk raw materials
- transport received goods to storage using manual and mechanical aids
- store goods ready for easy requisition

Performance criteria (for the first element only, receive and check bulk raw materials):
- the quantity and/or weight of materials matches the delivery note
- items/materials below specified standards are rejected (within the limits of the job-holder's authority) - discrepancies (apart from rejects) are promptly reported to an appropriate authority
- safe lifting methods are used when transporting bulky or heavy items
- written documentation is complete, accurate and legible

The example continues with illustrations of the precise structure of performance criteria. Each describes a critical aspect of performance or characteristic of the product and is accompanied by an evaluative statement which applies to that characteristic. So, in the first performance criteria in the above example, the critical aspect is 'the quantity and/or weight of materials' and the evaluative statement is 'matches the delivery note'. In the fourth performance criteria, the critical aspect is 'when transporting bulky or heavy items' and the evaluative statement is 'safe lifting methods are used'.

FORMATIVE/ SUMMATIVE ASSESSMENT

Definition

Formative assessment is assessment carried out in order to aid the learning process by providing information on the learner's progress, to both the learner and those responsible for his/her learning.

Summative assessment is assessment designed to communicate to others, all or part of the achievements of the learner/assessee.

Commentary
Both formative and summative assessment adhere to the principles of assessment in general regarding reliability, validity, and utility.

Summative assessment (see continuous/terminal assessment) tends to be a tool of accreditation rather than learning. The recorded information it produces may be presented in certificates, references, CVs, portfolios or contained within awards and qualifications. Sometimes the presentation can be tailored to a specific, known audience. At other times, options have to be kept open as the audience eg selectors in industry and education is varied and unknown.

The presentation of the assessment - a public statement of achievement (see certification) - affects the processes by which the assessments themselves are *made*. Some assessment processes may be used because they have credibility. The assessments may focus on aspects of achievement which are known to be looked for in, for example, selection for employment or training.

Summative assessment within VET is increasingly structured around standards of competence defined independently of the routes by which competence is achieved. While performance information may be obtained along the route, the route itself is of no significance in the summative assessment.

Formative assessment may be used to inform summative assessment and may turn into summative assessment. However, while summative assessment should be directly related to specific end-points or intended outcomes of the learning, formative assessment need only be indirectly related to these. It may allow a variety of routes to competence, via any number of intermediate objectives. In this sense formative assessment is a tool of learning, not of accreditation.

The feedback on progress which formative assessment provides (using an appropriate recording process) should be used by both the trainer and the learner. There is also, of course, minute-by-minute feedback or knowledge of results which occurs during the carrying out of an activity. Formative assessment can draw heavily on both these types of feedback.

Formative assessment is closely associated with the reviewing of progress. This, together with written reports on progress, may be the visible representation of formative assessment. Annual appraisal interviews may be, though not always are, a form of formative assessment.

It is particularly useful for learners to see just what skills they are expected to use, and to be aware of those aspects of performance on which they will need feedback. Formative assessment has to produce, and use, information which is rather more subtle than information as to whether or not someone has performed to standard. Using a framework like the core skills framework can enable a trainer to be more explicit about aspects of performance which the learner needs to adjust in order to meet the standards required. Using core analysis can enable the learner to see this for him/herself.

FUNCTIONAL ANALYSIS

Definition
Functional analysis is a method of deriving standards in the form of units of competence and elements of competence for National Vocational Qualifications (NVQs). The analysis identifies functions for organisations or individuals and successively breaks them down into smaller functions. A *function* is a role-expectation; something which is done described in terms of what is expected of its outcome. Individual workers' work roles usually involve a number of functions.

Commentary
The principal purpose of functional analysis is to identify standards for NVQs, rather than to plan training. Standards are seen as external to individuals, but capable of being achieved by them.

The analysis involves the following, firstly, identification of the key purpose of an organisation or an occupational area, secondly, identification of the various functions carried out to achieve that key purpose, and finally, redescription of these functions at successively more detailed levels. Functions are characterised by their *outcomes* or the results they effect; eg a case of 'providing information' rather than 'writing a memo'. Unlike most task-based forms of analysis, functional analysis requires the analyst to identify functions across the job as a whole - not just performing tasks, but managing them within a job environment which is unpredictable and contains people as well as things.

Functional analysis gives no insight into learning routes or processes for individuals. An element of competence may be the smallest chunk of competence for identifying the performance criteria which define standards, but further, different analysis may be required for training purposes.

The fullest description of the process of functional analysis can be found in Training Agency guidance notes (Training Agency 1989c).

Functional analysis should not be confused with *Functional Job Analysis* developed by Fine (see Fine and Wiley, 1971).

MODULE OF ASSESSMENT

Definition
In NCVQ terms, a module of assessment is a free-standing unit for accreditation purposes within a system of qualifications. A module of assessment does not specify the mode, duration or sequence of learning. The module is defined in terms of an area of competence and the standards against which the competence is assessed.

Commentary
Modules may be devised specifically for assessment and accreditation purposes, as in the case of NVQ units of accreditation. At other times the modules may have been created more for learning purposes (see Oates, 1986b).

In work based learning, achievement of modules by an individual may not be neatly sequential. The circumstantial nature of much of the learning in the workplace, in particular, may mean that information about achievement in several modules is being generated concurrently. This requires careful recording of performance information by whoever is coordinating the assessment process. An assessment map (Work Based Learning Project Team, 1988d) is a way of tracking the sources and flow of assessment information. A danger is that, because of the greater logistical complexity of assessment, employers and trainers may revert to simpler, one-at-a-time treatment of modules in the face of what is actually being achieved by the learners day-to-day.

Reading
Oates T (1986b)
Work based learning and modular accreditation: an analysis and a methodology for a development project.
FESC Information Bank No 2265.

NATIONAL RECORD OF VOCATIONAL ACHIEVEMENT (NROVA)

Definition The record published by the NCVQ which provides the means of recording the accumulation of units of competence (which may be certificated by different awarding bodies) within a common national system (NCVQ, 1989a).

Commentary
'The National Record of Vocational Achievement (NROVA), provides the means by which the records of achievement, including certificates, issued for the successful completion of units of competence at different times and by different awarding bodies can be brought together and accumulated. It is normally issued to individuals by the providers of vocational education and training, who thus participate with holders of NROVA in a coherent national system.' (NCVQ, 1989a)

NROVA constitutes the first attempt to develop a *national* system for recording information on competence of various kinds in occupational performance. It is intended to be used across the whole post-16 age range, across all abilities and occupational areas.

The NROVA meshes uneasily with the records of achievement being developed within a national development programme on Records of Achievement for schools overseen by the Department of Education and Science (see DES and Welsh Office, 1989a). The relationships between these two systems will be of considerable importance to employers and other selectors.

Use of NROVA will be a challenge to those employers and FHE institutions who are used to selecting applicants on the basis of a certain number of grades at O or A level or on the basis of traditional vocational qualifications.

It will be necessary for selectors, course tutors and all others who are required to interpret the assessment information presented in qualifications/certificates, to learn to handle a greater wealth of information than they have previously dealt with (see certification/selection).

FHE institutions may need to consider holders of NROVAs in the same light as that in which they currently view experienced mature students. They should also make available modular and open learning opportunities in a way which ensures that learners do not have to repeat activities in which they are already competent (although they may need to build on and underpin these).

PERFORMANCE-BASED/KNOWLEDGE-BASED ASSESSMENT

Definition
Performance-based assessment is concerned with the demonstration of skills and knowledge or competence in the carrying out of real or realistic work activities. This can be contrasted with knowledge-based assessment in which learning is primarily oriented towards assessing the possession of knowledge alone rather than the

application or use of that knowledge in work or other situations.

Commentary

Within VET much assessment is directed towards the judgement of whether someone is competent in terms of some set of standards. Traditionally, assessment within both education and training has been predominantly knowledge-based, with some intrusion of skills tests (which certainly demand practical performance, but usually in a rather artificial context).

The greater emphasis which is now being placed on using the workplace for learning has allowed the merits of performance-based assessment to become more apparent. Much of the 'new' assessment does not involve conventional tests at all, but the gathering of information on learners' performance as evidence of their competence (see also assessment of work based learning). The strongest argument in favour of such information forming a major part of assessment is that the validity of assessment of competence is likely to be greater the nearer the assessment situation comes to the situation in which competence has to be exercised.

In the education system, educationalists too have become increasingly critical of assessment which is entirely knowledge-based. The rate at which specific areas/bodies of knowledge become out of date is increasing. Additionally, knowledge only reflects part of the requirement for effective performance in any area of life. It is seen that what is required is assessment based not on the reproduction of knowledge (though this must not be entirely disregarded), but rather on the active use of that knowledge alongside the application of skills within performance. In addition, ability to identify sources of knowledge in order to find out and subsequently use up-to-date knowledge is an important skill which many workers will need in future.

It is worth noting here that the development and use of performance based assessment in the secondary school system, for example with regard to the assessment of science process skills, is being supported by the Assessment of Performance Unit (APU) science survey programme (DES and Welsh Office 1989). It will be important for the coherent development of performance based assessment to ensure exchange of information from all available experimental and developmental sources.

PROFILES

Definition

A profile is a report which provides separate assessments for different attributes of the assessee, rather than an aggregation within a single grade, score or statement. Profiles are a means of *recording information* rather than a method of assessment.

Commentary

Profiles have the potential to provide information of greater variety and subtlety than single statements or grades. It is easier to present a quantity of information in a profile. This will typically take the form of a grid with a series of scales or sets of statements for each individual attribute of the assessee. These attributes may include personal and social skills alongside more conventional attainments.

However, even if the information is informed by thorough assessment, it may be very difficult for the reader to understand and interpret what is presented. Therefore, creators of profiles need to put themselves in the position of their audience - that is, the *users* of the profiles. How will employers/selectors view the information presented to them? What will their *interpretation* be? (See also certification/selection)

Over the past decade considerable research work has been undertaken on profiles and the profiling process but less on the manner of use of profiles by selectors in industry and FHE. Many of the issues raised, technical, ethical, and the feasibility in implementation terms, were well collated and recorded by FEU. The FEU document (FEU, 1984c) suggests that development work led to a reasonable agreement on philosophy associated with profiles - the centrality of the learner, the importance of the formative role of profiling, the range of qualities to be assessed etc. Many of the ideas from profile activities, including in TVEI and CPVE, have now been taken forward in current DES records of achievement development work in schools (DES and Welsh Office, 1989a; Broadfoot et al, 1988).

RANGE STATEMENTS

Definition

Attached to an element of competence, range statements specify the contexts, activities, processes and equipment to which the element and performance criteria apply.

Range statements 'serve to contextualise the standards and...reflect the current views of acceptable, professional practice. Range statements...allow specification of the evidence requirements on an element for assessment purposes'. (Mitchell, 1989)

Commentary

'Elements of competence and performance criteria are intended to be specified in a way which is as common and general as possible for the function represented by the unit of competence. For a particular occupation, however, it may be difficult to interpret such general standards, and there will need to be a specification of the activities to which the standards are expected to apply. Different occupations may therefore have the same form of standards, but different applications or contexts.

'For example, a criterion "appropriate instruments and materials are ready for use and available" may apply equally well to dentistry and graphic design, but it helps the interpretation of the criterion to know the *range of activities* to which it applies.

'Within the occupation, the specification of *range* may define, in one sense, the extent or level of the competence.

'It may also define the types of activity which assessment would be expected to address. Assessment, through whatever means, should provide evidence of competence throughout the specified range and should therefore be based on evidence of performance and/or knowledge indicating likely performance for all the different contexts in the range.

'In specifying range and the different components of the range to which competence might apply, the skills and processes involved may be taken into account as well as the outcomes defined by the elements and performance criteria.' (Mitchell,1989)

RECORDS OF ACHIEVEMENT

Definition

'...Records of achievement bring together the wide range of pupils' achievement and progress both within and outside the classroom, including experiences and achievements not tested by examinations. The process leading to the production of the record ('the formative process') is as important as the record itself, focusing as it does on clear goals, self-appraisal and self-managed learning......the introduction of national arrangements for all pupils in secondary education is a worthwhile and a practicable goal. It should command support not only from pupils and teachers but also from parents, employers and the wider community...' (DES and Welsh Office, 1989a)

Commentary
In 1984 the Government issued its policy statement on records of achievement (ROAs) in schools. This included the intention of setting in place by 1990 national arrangements for the introduction of ROAs for school leavers. Following this a number of pilot schemes for ROA development work was funded. In June 1985 the Records of Achievement National Steering Committee (RANSC) was set up. It was supported in its work by a team of professional evaluators whose work became known as PRAISE (Pilot Records of Achievement in Schools Evaluation) (see Broadfoot et al, 1988).

The reasons for including ROAs in this document on work based learning are, firstly, that employers and further and higher education (FHE) institutions are intended to utilise and build on ROAs and, secondly, that with the establishment of NROVA (the National Record of Vocational Qualifications) issues of coherence between ROAs and NROVAs and their use by employers and/or FHE will need to be evaluated and monitored.

RELIABILITY

Definition
The degree to which assessments are equivalent or consistent from one occasion to another, from one assessor to another.

Commentary
'Reliability refers to the consistency or reproducibility of scores or grades - the extent to which variation in a set of grades represents systematic differences between individuals rather than other sources of variation (error). Most assessments will have several sources of error. With hands-on tests and interviews, the rater is one source of error, since two raters will not necessarily give the same rating at the same performance. Another source of error is occasion-to-occasion variability of performance on a given task. A third source of error is variation due to the sampling of tasks; a different set of tasks might yield different assessments. The analytical challenge is to get some idea of the magnitude of errors from the various sources' (Wood et al, 1988).

An assessor wants any difference in assessment between one assessee and another to be due to differences in the candidates' performance and competence. Errors creep in through both the design of assessment processes and their misapplication. In assessing performance in the workplace through observation, reliability is highly dependent on the assessor using *sufficient* evidence to make a judgement. A single performance of some task may not be much of a basis for a reliable judgement. It is essential that the judgement of competence will not accredit too many people who should not be accredited (called false positives) and not fail to accredit too many people who should be (false negatives). It is also essential that all those concerned with assessment recognise that *an unreliable test is an unfair test*.

Validity and reliability have a close relationship within assessment. Some policy statements imply that validity is 'more important' than reliability in competence-based assessment within VET, but this is misguided. Validity and reliability are different but interdependent; it is important to recognise this since it affects the quality of assessment, which in turn is operationally linked to the quality of instruction.

Reliability can be analysed statistically, using such procedures as generalisability theory (for example, Crocker and Algina, 1986), and the sources of error identified.

SELECTION IN VET

Definition

In the context of VET, selection is a process of discriminating between individuals and making decisions based on that discrimination. Typically, selection is for purposes of recruitment to employment or for entry to further education or training.

Commentary

Selecting people for jobs, for education courses and training opportunities can acquire an air of great, but unwarranted mystique. Despite its technicalities it is a straightforward enough *concept*.

It involves judging - weighing up - how likely it is that candidates will match up to requirements, and it involves differentiating between competing candidates.

Analysis for selection purposes is the traditional area of *job analysis*. Analysis of what *training* can contribute to someone attaining competence in a job, on the other hand, is often ignored, or only carried out after people have been selected. This is an area where trainers' understanding of the capacity of training programmes should be brought to bear on selectors and selection processes. Analysis processes within selection should involve establishing:

- Job descriptions and job specifications
- The repertoire of skills, etc to which training can contribute
- The person specification - the desired attributes of a successful candidate
- The attributes of the actual candidates

Core analysis provides a framework of skills and a means of identifying those skills in tasks and activities. It helps to make selection more about *what* is required and *what* a candidate can do, and less about *who* the candidate is and the way they seem to come across.

One of the key functions of assessment and accreditation as a whole is to provide information relevant to the making of selection decisions. Unfortunately, many qualifications are notoriously bad predictors of future performance, but are used for their convenience in making judgements. Convenience of use of information, though an important consideration, should not be given priority over the relevance of the information to the decision being made (see also certification).

STANDARDS/ OCCUPATIONAL STANDARDS

Definition

Educational standards: 'Educational norms of performance or quality recognised by a society, by a teaching force, by an institution, or by an education and training system.' (Skilbeck, 1985)

Occupational standards: 'Standards are based on the needs of employment and embody the skills and knowledge and the level of performance relevant to the work activity. It is envisaged that they will form the prime focus of training and the basis of vocational qualifications.' (MSC, 1988a)

Standard (of performance): 'the measure of performance required for the achievement of an element of competence as indicated by the related performance criteria.' (NCVQ, 1989a)

Commentary

In VET, the term *standards*, like competence, is used as a shorthand both for *occupational standards* and for *standards of competence*. The development of standards is now being led by the Training Agency and NCVQ, particularly through the development of new national vocational qualifications. The standards are embodied in units of competence and expressed by means of elements of competence and their associated performance criteria. Much of the standards setting process is in the hands of lead industry bodies (LIBs) which are considered to represent, in various ways, employers interests in an industry sector (see employer-led, employment-led).

The formation of standards can be seen as the result of two separate processes:

- Identification of standards - the process by which the field of behaviour within which standards will be set is identified
- Setting of standards - the identification of the criteria which will apply within the identified field of behaviour

The method for identifying standards in the context of NVQs is functional analysis. Of equal importance to the technical matter of setting standards is the *purpose* of having the standards at all. Are they intended to make qualifications more useful? Are they intended to bring about an *improvement* in the standards of occupational activity, and thereby impact on competitiveness? Are they intended to raise the base level of industry standards which are, and have to be, highly dynamic and related to particular market demands? Are they intended as goals for trainers, by which they, as much as their learners, may be judged? And how should training standards be related to industry standards? National guidance on developing occupational standards is available as a set of Training Agency Guidance Notes (MSC, 1988a; MSC, 1988b; MSC, 1988c; TA, 1989a; TA, 1989b; TA, 1989c).

Reading
Mathews D and Mansfield B (1985)
Occupational standards: job competence and the measurement of achievement. FESC Publications

UNIT OF COMPETENCE

Definition
In the context of NVQs, 'A unit (of competence): a primary sub-division of the competence required for the award of an NVQ, representing a discrete aspect of competence having meaning in employment which may be recognised and certificated independently as a credit towards an award. A unit is made up of elements of

competence (see also core units, generic units and optional units).' (NCVQ, 1989a)

Commentary
A unit of competence is not simply a collection of assorted achievements in relation to work. Units of competence are intended to be meaningful descriptions of what makes up occupational competence, intelligible to employers, learners and worker-learners, supervisors, FHE teachers/tutors, and to have currency in labour markets and the VET system. Possession of a unit of competence represents the achievement of competence in performing a *function*. It contains elements of competence and their associated performance criteria.

The design of units of competence and elements of competence with their associated performance criteria is the major current initiative in VET involved in relating vocational qualifications more closely to competence in work. Units are intended to be derived using the process of functional analysis. For the main body of guidance on this topic see MSC, 1988c and Training Agency, 1989c.

A unit, its elements and criteria are together an expression of occupational standards. They are intended to represent the outcomes *expected* when a competent worker carries out the particular function stated in the unit. An outcome in this sense is not a *learning* outcome, but the result of purposeful activity. When a worker-learner achieves the standards, the elements of competence and performance criteria which make up the units provide a coherent *record* of a worker's competence.

While they are the result of learning, units and elements are not *training objectives* or *learning objectives* in any traditional sense. Moreover, as the guidance notes state: '...a unit of competence is not a training programme although the elements which it includes might form the basis of one. The unit determines what eventually has to be demonstrated for credit to be given. It does not presuppose a particular sequence of learning, which is a matter for the various employers within the industry to decide...'

Despite this statement of intent, it is very possible that the units will be taken as syllabuses to be taught (simply because syllabuses are traditionally used in training). It would be unfortunate if by doing this the NVQ units in fact led to a narrowing of vocational learning opportunities and failed to fully utilise the development of learning to learn, learning to manage change, learning to transfer skills and so on.

A unit of competence may readily be achieved through work based learning, provided that the standards contained in that unit are congruent with those demanded in the learner's work role. The mixture of workplace learning, on-job training/learning and off-job learning opportunities present in work based learning provision may provide learning opportunities which allow the learner to attain units which could not be attained *solely* through workplace learning. The congruence of the standards with the demands of the work role is essential if undue disruption or distortion of work processes is to be avoided; employers are unlikely to be enthusiastic about artificially raising or lowering standards in production simply to allow workers to obtain NVQ units.

UTILITY

Definition

'The term utility is applied to assessment in two ways. In its *soft* meaning it refers to the usefulness of assessment - its relevance to the purpose to which it is put and its flexibility.' (BTEC, 1986)

'Utility embraces the convenience, flexibility and inexpensiveness of the assessment.' (Nuttall, 1986)

In its more *technical* sense, utility is a mathematical measure incorporating the probability of various outcomes and their payoff value.

Commentary

The use of the term as a synonym for usefulness is self-evident. What utility in the technical sense has to offer is a measure of technical merit of assessment which may add to those of reliability and validity. In looking to see if assessment gives the information it claims it does (a folk definition of validity), we might go further and look at the cost and value of being right in the assessment and of being wrong.

VALIDITY/ VALIDATION

Definition

Validity is a measure of the extent to which an assessment assesses that which it purports to assess. 'Whether a test does what it was meant to.' (Frith and Macintosh, 1984)

Validity is the 'extent to which a given test is an appropriate measure of what it was intended to measure.' (Page and Thomas, 1977)

'Validation (of training)...Test of whether a training programme has succeeded in teaching what it set out to teach (internal validation) and whether this was a realistic training need (external validation). Techniques include written tests, oral tests, interviews and post-tests.' (Page and Thomas, 1977)

Validation is the process of establishing validity. (see also verification)

Commentary

The implementation of a new competence-based system of national vocational qualifications, in which standards are competence-based and evidence for competent performance draws extensively on direct observation of work activities, means that validity needs to be better understood by those involved in such direct assessment. This is in addition to those who design skills/ proficiency/competency tests, write projects/assignments, or obtain evidence from learner's prior experience/ achievement.

'"Validity" (or its one word sibling, reliabilityandvalidity) gets thrown around a great deal, as though you check them by running a simple litmus test. In fact validity is both a reasonably simple idea, which you can think about sensibly without a doctorate, and a very difficult one, because it is hard to achieve and harder to know that you've achieved it. What matters is to test what we set out to test, and provide generalisable information about clearly defined outcomes. Test validity involves thinking about exactly what we want to measure, and what evidence to accept. These are all the things required for statements of competence, and the reason why industrial lead bodies must not leave validity to the "experts"' (Wolf, 1988).

Validity and reliability are different but interdependent: neither is 'more important' than the other despite the claims of some policy statements.

'The validity of a test is limited by its reliability, there is no getting around that. But it certainly does not follow that a reliable test will necessarily be valid. A test to recall strings of seven random digits may give the same results time and time again, but it may not be a valid test of ability to remember the telephone numbers of friends, just as being able to remember such numbers does not necessarily say anything about personal popularity' (Wood et al, 1988).

What is important to recognise from the point of view of the learner, is that the effects of one test which lacks validity and another which is administered in such a way that it produces unreliable results is the same: they are both *unfair*.

There are various forms of validity which apply to assessment - content validity, construct validity, predictive validity and so on.

'Content validity, sometimes called face validity (is) a statistical term to describe the apparent appropriateness of the test material to what is measured, eg a school examination would have content validity if the questions adequately sampled the whole syllabus.

'Construct validity: *construct* is used to explain aspects of human behaviour, eg *intelligence*, stability or neuroticism. Tests of such constructs are validated by comparison with observations or *ratings* over a long period.

'Predictive validity: validity of a *test* or *examination* based upon its correlation with some future variable. For example, one speaks of the predictive validity of school examinations for future success in higher education' (Page and Thomas, 1977).

The above concepts are important for those responsible for designing assessment systems and tests/assessment approaches. But equally important is the recognition that any sort of validity check involves the use of a *second measure* against which the results of the first can be compared, whether that second measure is essentially qualitative (as in content/face validity checks) or involves more quantitative analysis.

Statistical studies of validity can be expensive, and so, despite their importance, will not be adopted in many cases. What may be more useful for most assessment systems is a process of practical assessment *evaluation* whereby the measurement of performance and the judgement of competence (see assessment) can be reviewed to see how well their content matches and covers the range of competence which they purport to assess.

A secondary meaning of validation is the process whereby approval is given by a *validating body* to assessment arrangements for courses of study. An example of such a body is the Business and Technician Education Council (BTEC). Validation does *not* entail the validating body itself setting examinations. Some bodies may be both examining and validating bodies, eg. City and Guilds of London Institute (CGLI).

VERIFICATION/ MONITORING

Definition

'Verification is the process of monitoring assessment... Verification is merely the final check to confirm that what *should* be happening *is* happening.' (Training Agency 1989b)

Commentary

The primary purpose of verification is quality assurance; this is intended to contribute to the confidence which users have in NVQ certification. However, this monitoring process is also intended to improve communication between the assessors and the awarding body. This will provide feedback for both parties and so should enhance both practice and further development of assessment methodology (extracted from Training Agency 1989b).

VOCATIONAL QUALIFICATION/ NATIONAL VOCATIONAL QUALIFICATION

Definition

A vocational qualification is 'a statement of competence relevant to an occupation.' (MSC, 1988a)

A National Vocational Qualification (NVQ) is 'a statement of competence clearly relevant to work and intended to facilitate entry into, or progression in, employment and further learning, issued to an individual by a recognised awarding body.' (NCVQ, 1989a)

Commentary

In 1986, the Review of Vocational Qualifications (RVQ, 1986) examined the UK system of vocational qualifications and found it wanting. The RVQ report stated that '...vocational qualifications should relate more directly and clearly to competence required in work...'. In line with this, vocational qualifications are moving towards being statements of *outcomes*, defined in terms of occupational standards.

National Vocational Qualifications, being formed under the aegis of NCVQ (NCVQ, 1987a), are based on a 'statement of competence' incorporating units of competence containing elements of competence with their associated performance criteria. These encapsulate standards. Full qualifications, however, require more than the mere definition of the units. They require the formation of units into related sets which together comprise a statement of competence useful within an occupation.

The development of the NVQs, inextricably bound to the development of standards, is in the hands of lead industry bodies (LIBs) working in conjunction with awarding bodies such as City and Guilds of London Institute (CGLI).

Key issues include the use of NVQs within school provision, and extension of the NVQ framework to include professional qualifications. For the latter, see the NCVQ consultative paper (NCVQ, 1987b). This paper invited professional bodies to work with the National Council on issues associated with such location. It thereby raised a major question of whether a professional qualification can be subsumed within the term vocational qualification. For further discussion of issues raised by the NCVQ consultative paper see Oates, 1987.

WORKPLACE ASSESSMENT

Definition

Measurement of performance taking place in the workplace and the judgement of competence based on that evidence.

Commentary

The work place, even when it has been included within training and education programmes as in work experience components or the placements within sandwich courses, has previously not been developed as a context for assessment of performance. The learning that takes place and the competence that is achieved remains largely implicit.

Workplace assessment must be distinguished from assessment of work based learning. Just as workplace learning is only one of three components of work based learning, so workplace assessment is only *one* component of the *assessment* of work based learning, which includes the assessment of the outcomes of off-job and on-job learning too.

Work based learning requires forms of assessment which are criterion-referenced, performance-based and outcome-led.

The chief problems with which workplace assessment has to contend are the circumstantial nature of assessment information and staff training, logistic and financial implications. The activities in which learners are asked to engage are not determined or limited in the workplace in the way in which they are in tests. They depend on the working day - on the flow of work, the time pressures, and a whole host of employers' considerations. Assessment has therefore to be responsive (adaptive) to the performances which are demonstrated, and there may be a need to supplement information derived from the workplace with evidence from other contexts, or to wait some time until the right kinds of activity come along in the workplace.

Reading

Mathews D (1986c)
Assessment in the workplace - news from the faraway land of which we know little. FESC Information Bank No 2219.

Work Based Learning Project Team (1988d)
Making the most of the workplace in NJTS: The Assessment Map in NJTS. FESC Information Bank No 2456.

APPENDICES

REFERENCES

AGCS (1982)
Position statement on development of contents and standards. Unpublished paper 82/2. MSC Advisory Group on Content and Standards

AnCO (1985)
Skills Foundation Programme. Dublin: The Development and Standards Department, Planning, Research and Development Division, AnCO - the Industrial Training Authority

Anon (1986)
Training for work: in search of missing skills. The Economist, 20.12.86

Baker (1989)
Further Education - A new strategy. London: Department of Education and Science

Beechey V and Wood S (Ed) (1982)
The sexual division of labour and the labour process: a critical assessment of Braverman, in *The Degradation of Work.* Hutchinson

Bell C (1986)
Enterprise pilot will urge young to boldly go. Times Educational Supplement p 8, 19.12.86

Bennett R, McCoshen A and Sellgren J (1989)
TECs and VET: the practical requirements: organisation, geography and International comparison with the USA and Germany. London: Department of Geography, London School of Economics

Biggs J (1985)
Core Skills and Metacognition - paper written for the Quality in Education MSC/OECD Project on a key contextual aspect of Core Skills and the Curriculum. London: University of London Institute of Education

Booth C (1989)
The Challenge to Institutional Managers. Capability in Higher Education - A Polytechnic Director's Perspective. A conference paper for 'Facing the challenge of Higher Education for capability' June 1989. London: Royal Society of Arts

Broadfoot P, James M, McMeeking S, Nuttall D, Stierer B (1988)
Records of Achievement - Report of the national evaluation of pilot schemes. HMSO

BTEC (1986)
Assessment and Grading - general guidelines. London: Business and Technician Education Council

Burgess T (Ed) (1986)
Education for Capability. NFER-Nelson

Cassels J, (1989)
The real skill shortage - possible new directions. A note in draft. London: Policy Studies Institute

CBI (1987)
Cost effectiveness through competence: NVQ: an information guide. London: Confederation of British Industry

CBI (1989)
Towards a skill revolution - a youth charter. Interim Report of the CBI Task Force. London: Confederation of British Industry

CNAA (1988)
The assessment of prior experiential learning. London: Council for National Academic Awards

Crocker L and Algina J (1986)
Introduction to classical and modern test theory. New York: Holt, Rinehart, Winston

CSRU (1979)
Scope for Skills: Vocational Preparation in YOP Community Projects. Community Schemes Resources Unit (CSRU), Macdonald

Dale R (Ed) (1985)
Education, training and employment, towards a new vocationalism? Oxford: Pergamon Press

Davies T C (Ed) (1977)
Open learning systems for mature students. Working paper 14. Report of an investigation undertaken for the Council for Educational Technology. London: Council for Educational Technology

Dawe R (1982)
Unpublished MSC staff briefing note, August 1982

Department of Employment (1988)
Employment for the 1990s. Cmd 540. London: HMSO

Department of Employment (1989)
Training and Enterprise Councils: a prospectus for the 1990s. London: Department of Employment

DES (1986)
Furthering educational links - A synopsis. London: Department of Education and Science

DES (1987)
Managing colleges efficiently - report of a study of non-advanced further education for the Government and the Local Authority Associations. London: Department of Education and Science

DES/MSC (1985)
Education and training for young people. Cmd 9482. London: HMSO April 1985

DES and Welsh Office (1989a)
Records of Achievement: report of the records of achievement National Steering Committee. January 1979 London: Department of Education and Science

DES and Welsh Office (1989b)
National Assessment: The APU Science Approach. June 1989. London: HMSO

Downs S (1984)
Developing skilled learners - learning to learn in YTS. Sheffield: Manpower Services Commission Research and Development Series No.22

Downs S (1987)
Developing skilled learners - helping adults to become better learners. Sheffield: Manpower Services Commission Research and Development Series No.40

Edmond N (1985)
Process skills in the curriculum of youth training schemes in France and England. Unpublished M Phil dissertation London: University of London Institute of Education

EEC (1979)
A Resolution of the Council of Ministers of the EEC, 18.12.79. European Economic Commission

Evans K, Brown A and Oates T (1987)
The report of the evaluation component of the Core Skills Project. Sheffield: Manpower Services Commission Research and Development Series No.39

FESC (1989a)
The FESC Responsive College multi-media guide to college marketing. Bristol: Further Education Staff College Publications

FESC (1989b)
Coombe Lodge Report Volume 20 No 12, Client satisfaction: monitoring quality. Bristol: Further Education Staff College Publications

FEU (1978)
Experience, Reflection, Learning - suggestions for organisers of schemes of Unified Vocational Preparation. London: Further Education Unit

FEU (1980)
Developing social and life skills. London: Further Education Unit

FEU (1982)
Basic Skills. London: Further Education Unit

FEU (1983)
Curriculum opportunity. London: Further Education Unit

FEU (1984a)
Towards a competency based system: an FEU view. London: Further Education Unit

FEU (1984b)
Core competencies for engineers - a consultative document. London: Further Education Unit

FEU (1984c)
Profiles in Action. London: Further Education Unit

FEU (1986)
Enterprise Education Bulletin No 3. London: Further Education Unit.

FEU (1987a)
Supporting change - a revision of Vocational Preparation. London: Further Education Unit

FEU (1987b)
Assessing experiential learning. London: Further Education Unit

Fine S A and Wiley W W (1971)
An introduction to Functional Job Analysis. Kalamazoo, Michigan: W E Upjohn Institute for Employment Research

Frith D S and Macintosh H G (1984)
A teacher's guide to assessment. Cheltenham: Stanley Thornes

Fulton O and Ellwood S (1989)
Admission to Higher Education - policy and practice. A report to the Training Agency. Sheffield: Training Agency

Gealy N (1986)
Glossary of terms used in curriculum design assessment and accreditation. London: City and Guilds

German Engineering Employers Federation (1985)
Response to an article in Frankfurter Allgemeine Zeitung 28.1.85

Gordon P and Lawton D (1984)
A guide to English educational terms. London: Batsford

Grant B (1985)
Capability, Enterprise and Entrepreneurship in *The Vocational Aspect of Education No 38 (August)* Huddersfield: Huddersfield Polytechnic

Hayes C, Izatt A, Morrison J, Smith H and Townsend C (1982)
Foundation training issues. Falmer: Institute of Manpower Studies

Hayes C, Fonda N, Pope M, Stuart R and Townsend C (1983)
Training for skill ownership IMS. Falmer: Institute of Manpower Studies

Hayes C (1984)
Competence and competition, training and education in the Federal Republic of Germany, the United States and Japan. London: National Economic Development Office/Manpower Services Commission

Henebery C (1984)
Process skills in context. London: ILEA FHE Curriculum Development Project

Honey P and Mumford A (1986)
The manual of learning styles. Berkshire: Honey

Jallade J P (1982)
Alternance training for young people: guidelines for action. Berlin: European Centre for the Development of Training (CEDEFOP)

Jamieson-Wray M, Moor C and Hill S (1980)
UVP: an evaluation of the programme. Slough: National Foundation for Educational Research

JBPVE (1984)
The certificate of pre-vocational education : consultative document. London: Joint Board for Pre-vocational Education

Kassell (1979)
Extract from an introductory lecture on the Preparation of Young People for Working Life. Prepared for a European Commission seminar by the Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Lander in the Federal Republic of Germany, Bonn

Kolb D A, Rubin I M and McIntyre J M (1979 3rd edition)
Organisational psychology: an experiential approach. Prentice-Hall

Lee R (1980)
Beyond coping, some approaches to social education. London: Further Education Unit

Legge D (1970)
Skills. Penguin

LET (1987)
Handbook for the assessment of experiential learning. London: Learning from Experience Trust

Levy M (1986)
Curriculum development in the Youth Training Scheme, in *Ranson S, Taylor B, Brighouse T (Eds) The Revolution in Education and Training.* Longman.

Levy M (1987a)
Work based learning - tools for transition. Bristol: Further Education Staff College Information Bank No 2261

Levy M (1987b)
The Core Skills Project and Work Based Learning. published Sheffield: Manpower Services Commission but distributed by Further Education Staff College Library

Levy M (1987c)
Innovation and change in VET - rationale for the design of the prototype for the investigation of the issues of innovation and change in vocational education and training. Bristol: Further Education Staff College Information Bank No 2282

Levy M (1988)
The role of core skills in work based learning. Article in Transitiom October 1988. London: British Association for Commercial and Industrial Education

Levy M and Mathews D (1989)
The MSC Core Skills. Bristol: Further Education Staff College Information Bank No 2283

Mansfield B and Mathews D (1985)
Job competence: a description for use in vocational education and training. Bristol: Further Education Staff College Publications

Mathews D (1986)
The accreditation of ability to transfer skills and knowledge to new situations. Bristol: Further Education Staff College Information Bank No 2201

Mathews D (1987a)
The development of the YTS core skills - derivation and characterisation. (Draft) Bristol: Further Education Staff College Information Bank No 2262

Melling T G (1979)
Report of a visit to Canada to investigate research into generic skills. (Unpublished paper) London: Further Education Unit

Mitchell L (1989)
The relationship between knowledge and standards - Paper given at a Training Agency symposium on identification and assessment of underpinning knowledge and understanding. Leicester, January 1989

Moesser A (1983)
National vocational entrepreneurship education task force - a paper presented at the conference of entrepreneurship. Education Forum Ohio State University

MSC (1977)
Instructional guide to social and life skills. Sheffield: Manpower Services Commission

MSC (1978)
Making Experience Work - principles and guidelines for providing work experience. London: Manpower Services Commission, Special Programmes Division

MSC (1981a)
A New Training Initiative: a consultative document. Sheffield: Manpower Services Commission

MSC (1981b)
A New Training Initiative: an agenda for action. Sheffield: Manpower Services Commission

MSC (1982a)
Youth Task Group Report. Sheffield: Manpower Services Commission

MSC (1982b)
Grouping of skills: what have we learnt? Proceedings of a symposium held at Warwick University April 1982. Sheffield: Manpower Services Commission

MSC (1984)
Core Skills in YTS Part I: YTS Manual. Sheffield: Manpower Services Commission

MSC (1985)
Developing the YTS as part of an integrated training provision. Unpublished MSC Quality and Standards Branch statement of intent.

MSC (1986)
Guide to content and quality on YTS - approved training organisations. Sheffield: Manpower Services Commission

MSC (1988a)
Development of assessable standards for national certification. Guidance Note No 1. A Code of Practice and a Development Model. Sheffield: Manpower Services Commission

MSC (1988b)
Development of assessable standards for national certification. Guidance Note No 3. The Definition of Competences and Performance Criteria. Sheffield: Manpower Services Commission

MSC (1988c)
Development of assessable standards for national certification. Guidance Note No 4. The Characteristics of Units of Competence. Sheffield: Manpower Services Commission

NCC (1989)
National Curriculum Council GRIDS (Guidelines for Review and Internal Development in Schools) Secondary Schools Handbook - second edition. Published by Longmans for the National Curriculum Council

NCVQ (1987a)
The National Vocational Qualification Framework. London: National Council for Vocational Qualifications

NCVQ (1987b)
Professional Bodies, Their Qualifications and The National Council For Vocational Qualifications - Consultative Paper. London: National Council for Vocational Qualifications

NCVQ (1987c)
The accumulation of credits towards a national vocational qualification - a consultative paper. London: National Council for Vocational Qualifications

NCVQ (1988a)
Assessing and crediting prior achievements in National Vocational Qualifications. Information Note 5. London: National Council for Vocational Qualifications

NCVQ (1988b)
Introducing a national system of credit accumulation. London: National Council for Vocational Qualifications

NCVQ (1988c)
NROVA Procedures. London: National Council for Vocational Qualifications

NCVQ (1988d)
Information Leaflet No 1 - Developing a national system of credit accumulation and transfer. London: National Council for Vocational Qualifications

NCVQ (1988e)
Information Leaflet No 3 - Access and equal opportunities in relation to National Vocational Qualifications. London: National Council for Vocational Qualifications

NCVQ (1988f)
NCVQ News - Issue 5 NVQs access and equal opportunities. London: National Council for Vocational Qualifications

NCVQ (1989a)
National Vocational Qualifications: Criteria and procedures. London: National Council for Vocational Qualifications

NCVQ (1989b)
Assessment in NVQs - Use of evidence from prior achievement ('APL'). London: National Council for Vocational Qualifications

NEDO/Training Commission (1988)
Young People and the Labour Market - a challenge for the 1990s. London: National Economic Development Office

Nuttall D (1986)
The validity of assessments. Appendix in *Wolf A and Silver R Work based learning: trainee assessment by supervisors.* Sheffield: Manpower Services Commission

Oates T (1986a)
Supervisor snapshots: descriptions of workplace supervisors and their roles in work based learning. Bristol: Further Education Staff College Information Bank No 2263

Oates T (1986b)
Work Based Learning and Modular Accreditation: An analysis and a methodology for a development project. Bristol: Further Education Staff College Information Bank No 2265

Oates T (1987)
Commentary on the NCVQ Consultative Paper - 'Professional bodies, their qualifications and the National Council for Vocational Qualifications'. Bristol: Further Education Staff College Information Bank No 2284

Page T and Thomas J B (1977)
International Dictionary of Education. London: Kogan Page

Pearn N (1977)
The CRAMP approach to the teaching of social and life skills and a glossary of selected social skills training terms. Cambridge: Industrial Training Research Unit (ITRU)

PICKUP in Progress (periodical)
PICKUP (Professional, Industrial and Commercial Updating). London: Department of Education and Science Adult Training Promotions Unit

Ranson S, Taylor B, Brighouse T (1986).
The revolution in education and training. London: Longman.

Resnick L B (Ed) (1976)
The nature of intelligence. Hillsdale NJ: Erlbaum

Rowntree D (1970)
Learn how to study - a programmed introduction to better study techniques. London: Macdonald and Co

RVQ (1986)
Review of vocational qualifications in England and Wales - report by the working group. London: HMSO

SCOTVEC (annual)
The National Certificate - Guide to Procedures. - (published annually for each academic session). Glasgow: Scottish Vocational Education Council

Singleton W T (1974)
Man-machine systems. Penguin

Skilbeck M (1985)
A question of quality, the Core Skills Project of the Youth Training Scheme in international perspective: Part A. (Draft) Paris: Organisation for Economic Co-operation and Development

Smith A de W (undated, but distributed 1978)
Generic skills: keys to job performance. Canada Employment and Immigration Commission

Sternberg R J and Wagner R K (1986)
Practical intelligence - nature and origins of competence in the everyday world. Cambridge: University Press

Taylor J E, Montague E K, Michaels E R (1972)
An occupational clustering system and curriculum implications for the comprehensive career education model. Ohio State University: The Center for Vocational and Technical Education

Theodossin E (1986)
The modular market. Bristol: Further Education Staff College

Training Agency (1988/89)
Achieving quality in employment training series. Nos 2 to 5. Guidance for training agents and training managers. Sheffield: Training Agency

Training Agency (1989a)
Development of assessable standards for national certification. Guidance Note No 5. Assessment of competence. Sheffield: Training Agency

Training Agency (1989b)
Development of assessable standards for national certification. Guidance Note No 6. Verification or monitoring of assessment practices. Sheffield: Training Agency

Training Agency (1989c)
Development of assessable standards for national certification. Guidance Note No 2. Developing standards by reference to functions. Sheffield: Training Agency

Training Agency (1989d)
Completion of the Action and Personal Training Plan - Guidance for training agents. Sheffield: Training Agency

Training Agency (1989e)
Completion and implementation of the Personal Training Plan - Guidance for training managers. Sheffield: Training Agency

Training Commission (1988)
Training manager prospectus. Sheffield: Training Commission

Varlaam C (1987)
The full fact finding study of the NSTO system. Sussex: Institute of Manpower Studies

Varlaam C and Pole C (1988)
The training needs of trainers in industry and commerce: A feasibility study. Trainer development for the 1990s series. Sheffield: Training Agency

Tuxworth E and Watts A G (Ed) (1985
Education and training 14-18 policy and practice. Cambridge: Careers Research and Advisory Centre (CRAC)

Wolf A (1986)
Work Based Learning - trainee assessment by supervisors. Sheffield: Manpower Services Commission Research and Development Series No.33

Wolf A (1988)
Sidestepping the difficult issues - article in Competence and Assessment Issue 4 April 1988. Sheffield: Training Agency

Wolf A (1989)
Learning in context - Patterns of skill transfer and their learning implications. Draft final report of a project funded by Training Agency. London: University of London Institute of Education, Department of Mathematics, Statistics and Computing

Wood R and Power C (1984)
An enquiry into the competence-performance distinction as it relates to assessment in secondary and further education. Australia: School of Education, Flinders University of South Australia.

Wood R, Johnson C, Blinkhorn S, Anderson S, Hall J (1988)
Boning, Blanching and Backtacking - Report on work funded by Training Agency. St Albans: Psychometric Research and Development Ltd.

Work Based Learning Project Team (1988a)
Making the most of the workplace in NJTS: structuring learning in the workplace in NJTS. Bristol: Further Education Staff College Information Bank No 2452

Work Based Learning Project Team (1988d)
Making the most of the workplace in NJTS: The Assessment Map in NJTS. Bristol: Further Education Staff College Information Bank No 2456

Work Based Learning Project Team (1989e)
Achieving quality in employment training: designing and using work based projects. Bristol: Further Education Staff College Information Bank No 2464

Wright D S, Taylor A, Davies D C, Sluckin W, Lee S G M , Reason J T (1971)
Introducing psychology - an experimental approach. Penguin

APPENDIX 2

FURTHER READING

The following is a complete listing of the readings recommended at the end of entries. All except Edmond N (1985) are available from FESC, Blagdon, Bristol, BS 18 6RG. All others, except those attributed to FESC Publications, are available from the FESC Librarian.

Boffy R and Bailey P (1985)
Learning in YTS : design and integration issues. FESC Information Bank No 2084.

Boffy R, Bailey P and Valentine R (1985)
Core skills and participative learning. FESC Information Bank No. 2088.

Edmond N (1985)
Process skills in the curriculum of youth training schemes in France and England. Unpublished M Phil dissertation London: University of London Institute of Education

Levy M (1985)
Curriculum development in YTS. FESC Information Bank No 2079

Levy M (1987a)
Work based learning - tools for transition. FESC Information Bank No 2261

Levy M (1987b)
The Core Skills Project and Work Based Learning. Sheffield: MSC/FESC

Levy M (1987c)
Innovation and change in VET - rationale for the design of the prototype for the investigation of the issues of innovation and change in vocational education and training. Bristol: Further Education Staff College Information Bank No 2282

Levy M (1988)
The role of core skills in work-based learning. Article in Transition, October 1988

Levy M and Mathews D (1989)
The MSC Core Skills. FESC Information Bank No 2283

Mansfield, B and Mathews, D (1985)
Job competence: A description for use in vocational education and training. FESC Publications

Mathews D (1985)
Issues of accreditation of Work Based Learning. FESC Information Bank No 2094

Mathews D (Ed) (1985)
Case Studies on the implementation of Training for Skill Ownership. FESC Information Bank No 2086

Mathews D (1986a)
The accreditation of ability to transfer skills and knowledge to new situations - A paper for discussion. FESC Information Bank No 2201

Mathews D (1986b)
YTS Core Skills and the accreditation of Work Based Learning. FESC Information Bank No 2220

Mathews D (1986c)
Assessment in the workplace - news from the faraway land of which we know little. FESC Information Bank No 2219.

Mathews D (1987a)
The development of the YTS core skills - derivation and characterisation. Draft. FESC Information Bank No 2262

Mathews D (1987b)
Accreditation of Work Based Learning - a new approach for education, training and employment. FESC Information Bank No 2281

Mathews D and Mansfield B (1985)
Occupational standards: job competence and the measurement of achievement. FESC Publications

Mathews D and Watson R (1989)
Individual Development Plans and the training of operators in the workplace. FESC Information Bank No 2286

Oates T (1986a)
Supervisor snapshots: descriptions of workplace supervisors and their roles in work based learning. FESC Information Bank No 2263

Oates T (1986b)
Work based learning and modular accreditation: an analysis and a methodology for a development project. FESC Information Bank No 2265

Prescott B (1986)
Competence Analysis Flow Chart. FESC Publications

Work Based Learning Project Team (1988a)
Making the most of the workplace in NJTS: structuring learning in the workplace in NJTS. FESC Information Bank No 2452

Work Based Learning Project Team (1988b)
Making the most of the workplace in NJTS: assessment and certification in NJTS. FESC Information Bank No 2453

Work Based Learning Project Team (1988c)
Making the most of the workplace in NJTS: work based projects in NJTS. FESC Information Bank No 2454

Work Based Learning Project Team (1988d)
Making the most of the workplace in NJTS: The Assessment Map in NJTS. FESC Information Bank No 2456

Work based Learning Project Team (1988e)
Compet 2 Computer program for IBM PCs and compatibles. FESC Publications

Work based Learning Project Team (1988f)
Skills Speak 2 Computer program for BBC Model B. FESC Publications

Work Based Learning Project Team (1989a)
Achieving quality in Employment Training: designing and using work based learning projects. FESC Information Bank No 2464

Work Based Learning Project Team (1989b)
Staff Development Manual on the use of analysis in the implementation of work based learning. (In Draft) FESC Librarian

DESCRIPTION OF THE WORK BASED LEARNING PROJECTS FROM 1986-1990

WORK BASED LEARNING PROJECT II (1988 - 1990)

M Levy (Project Director)
T Oates (Deputy Director)
M Hunt (Project Officer)
F Dobson (Project Secretary)
D Mathews (Consultant)

The Training Agency provides 'core' funding for the FESC Work Based Learning Project plus additional funding for 'satellite projects' (see below). The FESC WBLP II is in operation from September 1988 to August 1990.

The overall aim of the project is to assist the Training Agency with quality development strategies in regard to policy, implementation, and technical work required to encourage and support the take up of Work Based Learning (WBL) as a model for Vocational Education and Training across all three New Training Initiative (NTI) target groups.

NTI was concerned with bringing about national change in the post-16 education and training system in order to provide 'a highly skilled, technically competent workforce' which was also 'versatile, adaptable and mobile'.

The FESC WBLP objectives include:

- embedding WBL in the VET system
- exploring the various roles of bodies and institutions within VET in regard to WBL
- identifying and testing various learning tools relevant to WBL
- identifying and developing strategies for the assessment and accreditation of WBL in conjunction with other relevant Training Agency projects and agreed external agencies

The methodology is action-based and responsive to the situation in the field. It uses an iterative process where work from various sources is brought together so that each informs the other. The project work builds on previous work carried out in the Work Based Learning Project I (for details see below).

There are three strands to the project activities, each of which will contribute to quality development strategies. The balance of time spent on each will depend on Training Agency policy imperatives. The three strands are:

- working closely with agreed Training Agency policy developers

- agreed field activity: this includes the identification and establishment of a range of Work Based Learning Project 'satellite' projects, which are separately funded by Training Agency (generally via FESC) and which are used to investigate specific issues of WBL implementation with selected agencies. The field activities in these projects are managed on a day to day basis by the WBLP team. For details on the kinds of issues see Work Based Learning Project I below. Satellite projects currently agreed include work with Newham Community College, Skills Training Agency, Cornwall County Local Education Authority

  Newham Community College

Project Development Officer	Ron Watson (F/T)
Project Development Officer	Ken Burden (P/T)

  Skills Training Agency

Project Development Officer	John Cunningham (F/T)
Project Manager	Dick Riley (P/T)

  Cornwall County LEA

Project Development Officer	Ken Reynolds (F/T)
Project Director	Dick Evans (P/T)
Deputy Project Director	Paul Barnes (P/T)
Consultant for Staff Development	Peter Robinson (P/T)

  Instruments and processes for use within WBL which are being developed within the satellite projects include: individual development plans (IDPs), strategies for structuring learning in the workplace (including the use of work based projects), assessment and certification processes (including the use of the assessment map and processes associated with developing Records of Achievement and CVs), the operational definition of work based learning (see page 62), the use of core analysis and the language of core skills in describing occupational competence and in planning learning to enhance this, and staff training and development processes for those engaged in WBL

- developing an information dissemination strategy: a major aspect of this includes joint activity with the FESC Librarian and her staff to ensure the full range of work based learning developmental publications are available from the FESC library, free catalogue of WBLP Publications and Papers available on request

The project is based in London at the following address:

Work Based Learning Project
Institute of Education London University
59 Gordon Square London WC1H OAL
Telephone: 01 631 1502

WORK BASED LEARNING PROJECT I (1986 -1988)

M Levy (Project Director)
D Mathews (Deputy Director)
T Oates (Research Officer)
N Edmond (Research Assistant)
H Braithwaite (Project Secretary)
Additional technical support provided by Orton Associates

Funded by Manpower Services Commission from July 1986 to August 1988

The project investigated issues of implementing work based learning across the three target groups defined within MSC's 1981 New Training Initiative (NTI). A major feature of project activity was to establish a greater understanding of the concept and functions of work based learning. To this end, in September 1987 MSC published a report, "The core skills project and work based learning", by the Project Director, on work based learning as a new model for the design, delivery and accreditation of vocational education and training (VET). This identified eight key implementation requirements which must be addressed in 'new' VET.

The project investigated aspects of design, delivery and accreditation of work based learning, and the implementation of the new model for VET through its field activity which had three major foci. Focus I was concerned with the roles of FE off-job providers in the promotion, design, delivery and accreditation of work based learning; Focus II with investigating techniques and strategies among employed workers and their employers; and Focus III with the implementation of work based learning among unemployed persons on the new MSC adult training programmes. These three foci included work with Newham Community College, Cornwall College, North Devon College, Autoglass, and the Skills Training Agency.

The field work contributed to a number of work based learning issues

- the establishment of a more comprehensive concept of occupational competence
- instruments and processes for designing and using work based learning materials
- accreditation: standards/standard setting, assessment, certification, the functions of qualifications and the construction of a skills portfolio and CV development
- selection and appraisal processes for first entry workers already in post

Another major strand of project activity was the policy studies capability it provided to MSC. This included offering comment on MSC policy papers and on contemporary developments in the UK VET scene. It also offered critique and comment on methodology in strategic VET research and development.

APPENDIX 4

EXTRACTS FROM MAJOR POLICY DOCUMENTS ON CORE SKILLS, SKILLS OF TRANSFER, AND OCCUPATIONAL SKILLS FOR THE FUTURE WORKFORCE

'...the choice of which occupational skills to develop is difficult because their ultimate use is not known...nevertheless, the more fundamental or basic the skills which are acquired by the trainee, the more likely it is that they can be used in a variety of jobs. The trainee must be helped and encouraged not only to become competent in the exercise of the skills, but also, and equally importantly, to discover which skills are transferable and how they can be redeployed in new circumstances...

'...basic occupational skill needs are more difficult to specify...the list is potentially long, and some identification of underlying common skill groupings would be valuable. The more clearly the underlying nature of skills can be understood, the more purposefully a programme or project can be planned...

'...one way of relating skill learning to a wide variety of jobs is to identify the fundamental skills used in local labour markets, to offer opportunities for becoming competent in some clusters of these skills, and to practise their differing uses in the course of work experience with employers. This requires new techniques for analysing skills (rather than tasks) in local labour markets, and incorporating the findings in the building of education and training curricula...'

The above extracts are from paras 15, 18, 19 of the report of the Profile Task Group set up in Spring 1978 to advise Geoffrey Holland (the Director of MSC Special Programmes Division) on the 'promotion of improved learning experiences' (PROFILE) for young people. The task group consisted of people with a wide variety of knowledge and experience relevant to the education and training of young people (see MSC Special Programmes Division, 1978).

'...the compelling need therefore is for a training system which enables all workers to acquire a basic range of skills and to develop and adapt them throughout their working lives.....an employer needs people who have both a foundation of skills, knowledge and experience which

they can apply to practical problems and familiarity with and some knowledge of a range of tasks, activities or processes in which the employer is, or may be engaged...much effort has been expended - here, in Europe, in North America - to identify a broad foundation of generic skills and knowledge...employers know that an individual is much more valuable and is much more able to adapt to change if he or she has acquired some competence and practical experience in a range of related jobs or skills rather than being limited to the ability to perform one task in one context...'

The above extract is from para 26 of A New Training Initiative: A Consultative Document, published in May 1981. This seminal document set out the rationale for a new national system of vocational education and training. It has provided guidance for much of the development work carried out in 'new' VET for all ages post-16 (see MSC, 1981a).

'...in particular, opportunities should provide for the trainee to...acquire defined core skills (eg practical competence in the use of tools and machinery and in some basic office operations)...receive an introductory programme of training and skills related to a broad group or family of related occupations...increase his or her effectiveness in defined 'process' skills (eg planning or diagnostic skills)...be able, at completion of the programme, to transfer his or her skills, knowledge and experience to other employment contexts, including further skills, training or education...'

The above is extracted from para 4.10 of the report of the Youth Task Group, the establishment of which was proposed in A New Training Initiative: An Agenda for Action, published in December 1981 (see MSC, 1981b).

APPENDIX 5

ABBREVIATIONS USED IN THIS DOCUMENT

ACFHE	Association of Colleges for Further and Higher Education
AGCS	Advisory Group on Content and Standards
AM	Assessment Map
APEL	Assessment of Prior Experiential Learning
APL	Accreditation of Prior Learning
APU	Assessment of Performance Unit
BTEC	Business and Technician Education Council
CBI	Confederation of British Industry
CELP	College Employer Links Project
CET	Council for Educational Technology
CGLI	City and Guilds of London Institute
CNAA	Council for National Academic Awards
CPVE	Certificate of Pre-Vocational Education
CRAC	Careers Research and Advisory Centre
CSRU	Community Schemes Resources Unit
DTI	Department of Trade and Industry
DE	Department of Employment
DES	Department of Education and Science
EEC	European Economic Commission
EEN	Education for Enterprise Network
EHE	Enterprise in Higher Education
ESF	European Social Fund
ET	Employment Training
FE	Further Education
FESC	Further Education Staff College
FEU	Further Education Unit
FHE	Further and Higher Education
HE	Higher Education
IDP	Individual Development Plan
ITB	Industry Training Board
JBPVE	Joint Board for Pre-Vocational Education
LET	Learning from Experience Trust
LIB	Lead Industry Body
MSC	Manpower Services Commission
NCC	National Curriculum Council
NCVQ	National Council for Vocational Qualifications
NEDO	National Economic Development Office
NJTS	New Job Training Scheme
NROVA	National Record of Vocational Achievement
NSTO	Non-Statutory Training Organisation
NTI	New Training Initiative
NVQ	National Vocational Qualification
OECD	Organisation for Economic Co-operation and Development
OTF	Occupational Training Family

PICKUP	Professional Industrial and Commercial Updating
PRAISE	Pilot Records of Achievement in Schools Evaluation
QET	Quality in Education and Training
RANSC	Records of Achievement National Steering Committee
RCP	Responsive College Project
ROA	Record of Achievement
RPPITB	Rubber and Plastics Processing Industry Training Board
RSA	Royal Society of Arts
RVQ	Review of Vocational Qualifications
SCOTVEC	Scottish Vocational Education Council
SLS	Social and Life Skills
TA	Training Agency
TC	Training Commission
TEC	Training and Enterprise Council
TVEI	Technical and Vocational Education Initiative
UVP	Unified Vocational Preparation
VET	Vocational Education and Training
WBL	Work Based Learning
WBLP	Work Based Learning Project
WBP	Work Based Project
YTS	Youth Training Scheme

APPENDIX 6

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THE CORE SKILLS: QUICK REFERENCE LIST

NUMBER

1 **Operating with numbers**
1.1 Count items singly or in batches.
1.2 Work out numerical information.
1.3 Check and correct numerical information.
1.4 Compare numerical information from different sources.
1.5 Work out the cost of goods and services.

2 **Interpreting numerical and related information**
2.1 Interpret numerical data or symbols in written or printed form.
2.2 Interpret diagrams and pictorial representations.
2.3 Interpret scales, dials and digital readouts.
2.4 Identify items by interpreting number, colour, letter codes or symbols.
2.5 Locate places by interpreting number, colour or letter systems.

3 **Estimating**
3.1 Estimate quantity of observed items or materials.
3.2 Estimate quantities required for a process.
3.3 Estimate portions or shares.
3.4 Estimate dimensions of an observed object or structure.
3.5 Estimate weight, volume or other properties.
3.6 Estimate the time needed for an activity.
3.7 Estimate the time an activity has been going on.
3.8 Estimate the rate of use of items or materials.
3.9 Estimate the cost of goods and services.
3.10 Estimate and compare shapes or angles.
3.11 Estimate the size of gaps or holes and the fit of items.
3.12 Estimate required sizes of containers or covering materials.
3.13 Estimate size or shape for the purpose of sorting.
3.14 Estimate settings for tools, equipment, machinery.

4 **Measuring and marking out**
4.1 Measure the dimensions of an object or structure.
4.2 Mark out required dimensions and shape.
4.3 Measure weight, volume or other properties.
4.4 Measure out a required weight or volume.
4.5 Measure the time a process or activity takes.

5 **Recognising cost and value**
5.1 Compare the cost of different goods and services.
5.2 Compare the relative costs and benefits of buying or using goods and services.
5.3 Recognise the value of items in order to take appropriate care of them.

COMMUNICATION

6 **Finding out information and interpreting instructions**
6.1 Find out information by speaking to other people.
6.2 Find out information from written sources.
6.3 Find out information by observing.
6.4 Interpret spoken instructions.
6.5 Interpret written instructions.
6.6 Find out the needs of other people in the workplace.
6.7 Find out the facts about things that have gone wrong.
6.8 Find out the needs of customers and clients.

7 **Providing information**
7.1 Provide information by speaking to other people in the workplace.
7.2 Provide information by speaking to customers and clients.
7.3 Provide information in writing and by means of tables and diagrams.
7.4 Provide information by demonstrating to other people.
7.5 Provide information by answering questions in the course of the job.
7.6 Provide information by explaining to others about problems that have occurred in the job.

8 **Working with people**
8.1 Notice when to ask other people in the workplace for assistance.
8.2 Ask other people in the workplace for assistance.
8.3 Notice the needs of customers, clients, and other people in the workplace.
8.4 Offer assistance to other people in the workplace.
8.5 React appropriately to requests from other people in the workplace.
8.6 Discuss with other people in the workplace how things are to be done.
8.7 React appropriately to complaints from other people in the workplace.
8.8 Offer assistance to customers and clients.
8.9 React appropriately to requests from customers and clients.
8.10 Converse with customers and clients in order to establish or maintain an appropriate relationship.
8.11 React appropriately to complaints from customers and clients.
8.12 Notice where people behave exceptionally and whether action is required.

PROBLEM SOLVING

9 **Planning: determining and revising courses of action**
9.1 Plan the order of activities.
9.2 Plan who does what and when.
9.3 Plan tools, equipment, machinery, and stock and materials needed for a task.
9.4 Plan the arrangement of items.
9.5 Plan how to communicate for a particular purpose.
9.6 Plan how to present information.
9.7 Plan how to find information.
9.8 Diagnose a fault.
9.9 Plan how to deal with hazards and difficulties that might arise.
9.10 Plan how to deal with things that have gone wrong.

10 **Decision making: choosing between alternatives**
10.1 Decide when action is required.
10.2 Decide which category something belongs to.
10.3 Decide between alternative courses of action.
10.4 Decide how to make the best of an awkward situation.
10.5 Decide on a correct response when accidents or emergencies occur.

11 **Monitoring: keeping track of progress and checking**
11.1 Check that he/she is performing a task to standard.
11.2 Monitor a process or activity.
11.3 Monitor the availability of stocks or materials.
11.4 Check the quality and condition of equipment, materials or products.
11.5 Check written information.
11.6 Monitor the safety of the workplace.
11.7 Notice that things have gone wrong, and that action is required.

PRACTICAL

12 **Preparing for a practical activity**
12.1 Locate the place where work is to be carried out if it is not the usual one.
12.2 Identify or locate: TOOLS, EQUIPMENT,
12.3 Handle, lift or transport: MACHINERY,
MATERIALS,
12.4 Check and adjust or clean: STOCK OR ITEMS,
12.5 Arrange for safe and easy working: ANIMALS.
12.6 Carry out start-up procedures.
12.7 Adjust heating, lighting, ventilation.
12.8 Check for potential hazards in the work area.
12.9 Carry out health and safety procedures.

13 **Carrying out a practical activity**
13.1 Adopt safe working practices.
13.2 Lift or transport objects or materials.
13.3 Manipulate objects or materials.
13.4 Operate and control or adjust tools, equipment, machinery or instruments.
13.5 Set up, assemble or dismantle equipment, machinery, instruments or products.
13.6 Adopt safe practices in the event of accidents or emergencies.

14 **Finishing off a practical activity**
14.1 Carry out procedures to turn off or hand over: TOOLS, EQUIPMENT, MACHINERY.
14.2 Check products or results of activity for quality and accuracy.
14.3 Carry out procedures for cleaning or routine maintenance.
14.4 Carry out procedures to hand over products or results of activity.
14.5 Carry out procedures to store or return: TOOLS, EQUIPMENT, MACHINERY, MATERIALS, STOCK OR ITEMS, ANIMALS.
14.6 Restock for future requirements if necessary.
14.7 Check for potential hazards in the work area.
14.8 Carry out health and safety procedures.

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A GUIDE TO WORK BASED LEARNING TERMS

WORK BASED LEARNING PROJECT

This Guide derives from Training Agency funded field activity, development work and research undertaken by the Work Based Learning Project over the last eight years. It therefore reflects the views of the Work Based Learning Project Team.

For each term there is a definition and a commentary. Where the definition is taken from earlier or current literature on VET, the source is cited in the reference list at the back of the document. Where there is no source cited, the definition is one constructed by the Work Based Learning Project Team, and, as in most definitions in this guide, account has been taken of earlier work in the area.

The definition of work based learning

Work based learning is defined as:

Linking learning to the work role

and, in addition, having three inter-related components, each of which provides an essential contribution to the learning:

i Structuring learning in the workplace

ii Providing appropriate on-job training/learning opportunities

iii Identifying and providing relevant off-job learning opportunities

The purpose of work based learning

The purpose of work based learning, with its main characteristic of *linking learning to the work role* is to:

Assist workers and employers in responding to labour markets in which change is endemic

Provide a basis for the provision of continuous learning opportunities which such change implies and which was highlighted by the New Training Initiative (NTI).

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